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THE

WESTERN JOURNAL

and Civilian.

VOL. XIII. February, 1855. No. III.

ARTICLE I.

Commerce and Government.

THERE is no clause in the constitution of the United States which more fully attests the wisdom and statesmanship of its founders than that which confers upon Congress the power to regulate commerce. The sages of the American revolution comprehending the nature and practical operation of international commerce saw that to consummate and establish the independence of this country, it was necessary to subject foreign trade to the control of the national government. They saw that notwithstanding we had achieved political independence, yet, in a commercial aspect, these States were still provinces of Great Britain. For, the agricultural resources of that country having been developed, its mines opened, and its manufactures established, it was evident that without protection to American industry and encouragement to American genius and enterprise, the immense mineral deposits, the water power and other elements of individual and national wealth of this country would remain undeveloped, and for want of proper incentives, the inventive genius of the people would not be called out and directed to useful objects. It was obvious that an unequal contest between the unaided physical strength of the American laborer on one side, and the machinery, artistic skill and accumulated capital of Great Britain on the other, would have been a natural consequence of free trade, especially in the earlier stages of our history.

And it would be a disparagement to the sagacity and patriotism of the statesmen who formed the constitution, to suppose that they did not aim to invest Congress with the power to protect American industry, even without reference to revenue. But to our mind the constitution is sufficiently plain upon this subject. The first clause

of the eighth section of the first article provides, that "Congress shall have power to lay and collect taxes, duties, imposts and excises." This clause certainly contains all that could be deemed necessary to authorize Congress to collect revenue on foreign merchandize, and was doubtless so regarded by the convention. And as evidence that the power "to regulate commerce with foreign nations" was regarded as a distinct independent subject, it was separated from the power to lay and collect taxes, imposts, &c., and granted by the third clause of the same section.

But this wise provision, originating from a deep source of patriotism, and based upon the soundest principles of public economy, has been rendered inoperative by the subtle and continually encroaching influence of foreign commerce acting upon the minds of speculative politicians. The contest between the policy of protecting American industry and the influence of foreign commerce, has been waged without intermission, at least on the part of the latter, from the foundation of our government to the present time. A retrospect of this contest will show that during the greater part of this period, American industry, in some one or more of its departments, has been depressed and paralysed by foreign competition. And whenever, by reason of severe revulsions, the people have demanded and obtained protection against the influx of foreign commodities, but little time would elapse before the influence of foreign trade would again prevail in the councils of the nation, and compel a repeal or modification of such duties as conflicted with the commercial and manufacturing interests of foreign countries.

The modification of the law of 1832, regulating the tariff, is a notable instance of the consequences of legislating for other nations. By the act of 2d March, 1833, it was provided "that from and after the thirty-first day of December, 1833, in all cases were duties are imposed on foreign imports by the act of the fourteenth day of July, 1832, 'entitled an act to alter and amend the several acts imposing duties on imports,' or by any other act, shall exceed twenty per centum on the value thereof, one tenth part of such excess shall be deducted." It was further provided, that a similar deduction of ten per cent. should take place at the end of each subsequent period of two years until the 31st day of December, 1839, and that a deduction of thirty per cent. should be made on the thirty-first day of December, 1841, and that on the thir-

tieth day of June, 1842, the duties on all foreign merchandize should be reduced to twenty per centum.

The consumption of foreign merchandize in the United States, in 1833, was equal to six dollars and twenty-five cents for each individual; which was only about five cents *per capita* above the average consumption of the thirty-three years from 1821 to 1853 inclusive. But under the operations of the tariff of 1833 the consumption of foreign merchandize had increased, in 1836, to ten dollars and ninety-three cents *per capita*, being an advance of seventy-five per cent. in three years. During this period of three years the foreign merchandize consumed, exclusive of specie, amounted to $80,138,428 more than the domestic produce exported: the excess of consumption over the exports in 1836 alone being $52,240,450.

During the same period the public revenue increased and accumulated beyond all former precedent, and the opinion prevailed that the country was eminently prosperous, but the revulsion which occurred in the early part of 1837 exposed the delusion into which the people had been led by the seductive influence of foreign trade. The storm had been gathering for three years, and though its devastations were predicted by many, yet there seemed to be a blind confidence on the part of the people at large, that some favorable change in the current of events would break its force, and protect them from its fury. It was owing in a great degree to this blind confidence in the state of things then existing, that the revulsion of 1837 was so disastrous. Men continued to enlarge their business and increase their obligations until the revulsion came like a tornado prostrating commerce, banks, manufactures, and even agriculture for a time, in one mass of ruins.

We know that the disastrous consequences and the humiliating condition of the country which succeeded the period of excessive importation and consumption of foreign merchandize, to which we have referred, is generally attributed to other causes, but if the subject be analyzed, it will be perceived that those causes were simply effects, produced in a great degree by the act of Congress reducing the rate of duties.

The expansion of foreign trade produced by the reduction of duties in 1833 very naturally produced an expansion of the credit system; banks became a necessary part of mercantile machinery, and were created to facilitate its operations; and to this branch of

the system is to be attributed in a great degree the spirit of reckless speculation and extravagance which ensued.

The embarrassments which prevailed in every department of industry, subsequent to the revulsion of 1837, operated as a check to excessive importations; but the country was not restored to a prosperous condition until after the revision of the tariff, in 1842.

Such were the fruits of the compromise tariff of 1833, and many of the best men of that day live to attest and deplore their bitterness. Yet it would seem that the hard lesson has been taught in vain. For though eminently practical in respect to matters relating to their more immediate affairs, the American people are more liable, perhaps, than any other to be led into follies by abstract theories in politics, and even in morals and religion.

The doctrine of free trade between nations is plausible in theory, and might be admitted as sound in a practical system of public economy, could any two nations be found in all respects equal; but such a case can never occur. The physical and social conditions of no two countries of considerable area can be so nearly alike but that protection to some branch of industry will be necessary to the full development of their respective resources.

Commerce, though a civilizer to a certain degree, is a selfish, insatiable tyrant; and no country or nation can be free but in a limited sense of the term, or control its industrial and financial economy if its domestic trade be materially affected by the influence of foreign commerce. International commerce may be regarded as a unit. It is its nature to form itself into one system, embracing the whole earth, and consequently must have a local fixed center—an imperial seat—where its most distant operations are controlled. And as in imperial governments the more distant provinces are plundered to enrich the capital, so the countries farthest from the center of a great commercial system are liable to be most exhausted by its operations.

At present, Great Britain is the center of the world's commerce, and by reason of the immense trade between that country and this, our industrial pursuits, finances and domestic trade are controlled, in a great measure, by a foreign power. Through the means of our trade with that country we contribute to the support of an expensive monarchy, a hereditary landed aristocracy, an established church, a standing army, the largest navy in the world, and a numerous pauper population. And besides all this, the conductors

of the press, in certain parts of the Union, who seem to have been in search of a cause for the large shipments of specie and the depression in the iron trade, have discovered, as they suppose, that these things have been occasioned by the war between Russia and other nations of Europe. These opinions may in part be true, but are thrown out, as we imagine, to divert the public mind from the subject of protection to American industry. But we desire no stronger argument than this in favor of our cause. For if it be true that our commerce with Europe has become so extensive as to subject us to the burdens and inconveniences of a war carried on in the most remote parts of the continent, we are persuaded that no patriotic American will, after being convinced of that fact, continue to advocate the doctrine of free trade.

What security can the American people have for success and prosperity in any department of industry, if they are liable to be embarrassed and disappointed in their pursuits by war in Europe originating in the ambition, caprice or oppression of its rulers.

If our foreign trade was so regulated as to prevent it from being controlled by the pursuits of other nations, their wars, so long as we remained neutral, would tend to enrich this country instead of embarrassing its financial condition.

So far from regulating commerce with foreign nations, it is obvious to our view that foreign commerce has become a controlling element in the national councils of this country. Its influence is seen and felt not only in the halls of Congress, but in every department of business and society. It encourages the building of ships and the improvement of harbors on the sea coast, but opposes the improvement of internal navigation; it obtains the appropriation of millions, without specific constitutional authority, to establish ocean mail lines with foreign countries, while no provision is made to establish a post road across the continent; in the adjustment of the tariff it discriminates in favor of revenue, and repudiates the policy and even the constitutional right to discriminate in favor of protection to American industry; it creates a prejudice against American fabrics and American artists, and inculcates a taste for foreign commodities, foreign literature, and foreign manners; in fine, foreign commerce is denationalizing the American people, by subjecting them to the encouragement and support of institutions repudiated by their ancestors.

This condition of things is calculated to weaken the bonds which

bind these States together. By degrees the national sentiment has yielded to a sordid love of money, arising, in a good measure, from a desire to indulge in the extravagant follies and social vices of Transatlantic nations.

Internal commerce and social intercourse between the States are calculated to cherish a national sentiment and strengthen the bonds of union, and should consequently be encouraged by the General Government to the full extent of its constitutional power. But Congress is the creature of the people, and with them the reformation must commence. We have shown that our national independence is abridged, that the policy of the Government is controlled and the national sentiment vitiated by the influence of foreign trade, and we respectfully ask the American people if such things consist with their love of liberty and pride of country.

Unfortunately, the regulation of commerce with foreign nations through the medium of the tariff, has been regarded as a party subject for many years past; which has prevented it from receiving that calm and disinterested consideration that its importance demanded. But now, party lines having been broken, and party discipline somewhat relaxed, the present would seem to be a favorable season for the friends of American industry to obtain a fair hearing before the country, and in Congress.

In the adjustment of a tariff all sudden or violent innovations should be avoided, and, more especially, the burdens and benefits should be equalized as nearly as practicable among all classes in every part of the country. No tariff can be permanent which is not adjusted with a view to these principles.

Commerce is an essential element of civilization, and withal, the most complicated department of human industry. It is therefore highly important that the legislator should possess a reasonable amount of knowledge in respect to its principles and practical operations. In this country all public men do not qualify themselves to legislate wisely upon this great subject, and are therefore liable to err in respect to both principles and facts. Hence we have arrived at the conclusion that a *Bureau of Commerce* would be a useful department of the Government. In such a department facts might be collected relating to our trade with every part of the world, which would be useful to the people as well as to Congress. It should be the duty of the individual having charge of a Bureau of Commerce to obtain information relating to the effects

produced by tariff and treaty regulations upon our commerce in every part of the world, and also to ascertain the influence of such regulations upon all the departments of industry in this country. Such information, if collected with fidelity and properly arranged, would furnish a volume of information much needed by the public.

But all arguments and suggestions addressed to Congress are in vain without a change in the public sentiment respecting certain subjects connected with the social condition of the country and dignity of the American character. Labor in the ordinary vocations of society must be regarded with more favor; and the degree of respect awarded to individuals should be determined by the amount of useful labor they perform, rather than the amount of property they accumulate. Honest, intelligent industry should constitute the true basis of respectability, and wealth be regarded as an incident which may elevate or depress the character of the individual in the estimation of the community, according to the nature of the means employed in its attainment and the purposes to which it is applied. A public sentiment formed and governed by these principles would save many from the temptations to grow rich suddenly by speculations and other indirect means. It would correct the habits of extravagance in dress, furniture, equipage, and the many costly appliances of living which now prevail in every class of the community. The poor, and individuals of moderate means, indulge in the use of costly and superfluous commodities, because they regard such things necessary to make them respectable in the estimation of the community, while the rich are driven into extravagances still more absurd that they may be distinguished from the masses.

Though more properly, perhaps, within the province of the teachers of morals and religion, these are, nevertheless, legitimate subjects for the study and treatment of the political economist; for the absurd notions touching the elements of respectability are in a great measure the cause of the excessive importation of foreign commodities. They are the source of an inflated system of credit, and give rise to excessive banking and speculations in all kinds of property. The appliances used to support the appearance of wealth, or at least a state of competency, are too often drawn from, and abridge the means of, the more substantial comforts which

produce a continual state of want and inquietude, where fulness and contentment should prevail.

The public press might do much to correct the evils arising from the false taste and follies of the times, but unhappily its general tone is better calculated to foster individual and social extravagances than to improve the morals and refine the taste of the community. We have no Addisons now to hold the mirror up to folly, and expose the arrogance and shallow pretensions of those who base their claims to social respect upon the appearance or possession of wealth.

But after all, we are not without hope of a reformation in the public policy and public economy of the country. For though the spirit of commercial independence cherished by our ancestors has slumbered for a season, we are persuaded that it is again awakening into action, and if the friends of American industry are but true to themselves and their cause, the time is not distant when instead of being governed by foreign commerce, the United States will control the trade of the civilized world.

ARTICLE II.

From the United States Mining Journal.

The Igneous Theory and the Earth's Natural Laws.

Continued from page 104.

Lead is also a recent production in Cornwall, and even more so than copper. It may be called a surface ore: thousands of tons have been raised within 5 fms. of the surface, and even in the alluvial soil, but we can find none carried into the vallies, as the stream tin. Let us suppose it was in the lodes at the time of the deluge, what was to prevent it from being washed into the valleys, as the tin was? But we cannot find any; it was never washed there. It may be said that lead quickly becomes an oxide, and is gone off in solution, but this requires more time than many suppose. If the lead was then in the lodes, it would now be found in our valleys more plentiful than tin. To prove this, I will refer your readers to North Wales, where a large portion of the lodes are old and decaying; their gossan in nearly every case has become capels, and the lodes in depth only termed by Welshmen joints or strings; though I believe them to be the remains of once large and productive lead lodes, lodes that were rich in early days, and even before the deluge. Fine stones of ore are now to be found in the val-

leys, and known by the name of "tumblers" to Welshmen. The stones are from 1 lb. to 1 cwt., which shows that lead has stood from the deluge up to this day. Look at Nant-y-Mwyn, where the lodes may be seen for a considerable height in the cliff of the mountains, in some places all washed off, and in others, patches may be seen standing, but with little or no lead to be seen in it; but tumblers of lead are to be seen for miles below it in the alluvial soil; in fact, the ground below is streamed equal to any valley in Cornwall. This is said to be done by the Romans for lead. I have seen, myself, stones over 50 lbs. each in the alluvial soil, in ground that was thought too poor to pay for streaming, which is a clear proof that lead would have endured long enough to be found in our streams, if carried at the time of the deluge. Your readers will not suppose that I mean to insinuate all the Welsh lead mines are worked out; far from it. I have no doubt but many of them still contain quantities of good ore, but not to the extent they did at a more early period.

Returning again to Cornwall, I would notice antimony, manganese, and iron; they are all ores of recent growth, and rarely to be found carried into the valleys with the tin. All practicals must be aware that thousands of tons of these ores have of late been found within 30 ft. of the surface; see the Gosmore. It has all been streamed for tin; and near the Indian Queen the manganese has been worked extensively to within 2 ft. of the surface, but it is not distributed over the moor, as the tin is. Iron lodes are now worked in the midst of the moor, all of which are formations far more recent than the tin. The late discovery of antimony at St. Endellion was 7 ft. wide, on a hill, and within 2 ft. of the surface, but none is carried into the valley; had it been there at the time of the deluge, it would have been swept away like the tin.

In further remarking on lodes and strata, I will endeavor to show they are moved by what are termed faults, or heaves, which are produced from new crystallizations, or the decaying of old ones: it is the decaying of one stratum and the growth of another. This, by a careful observer, may be seen in every stage: on one side of a lode they often come to perfection in half the time they do on the other, which must make faults; but it is all a work of time, quietly going on, and nothing like volcanic or sudden eruptions; nothing apparently disturbed.

I am aware that it will be said that we have volcanic mountains still at work; no one will attempt to deny it; but what are they?—nothing more than beds or lodes containing bitumen, or other mineral substances near the earth's surface, which take fire spontaneously, and burn until exhausted; they are rare occurrences, and not equal on the earth's surface to a pimple on a man's face. I admit they form mountains of a known character, but from what? Nothing more than the melting matter that adheres when cooling near the top. It never becomes a stratification, nor do lodes form

in it; minerals ejected from it may form casual crystals. This corrupt ejected matter, when spread over the original layers, is as distinctly to be seen by men accustomed to stratifications, as the sun is by the community at large at noon day. The singular form of these mountains would not allow them to be shown as evidences against our mountains as not being formed by crystallization; they have no similarity to each other.

Every man who has a taste for the wonders of Nature must have noticed the beautiful tree-like crystals found on a frosty morning against the glass of his window, all with their tops upwards. There are but very few, however, who are aware that stones with a smooth surface are to be known on a frosty morning by the same thing; every tree-like form crystalized on them will be found to show its branches tending upwards, as the stone stood when it grew in the earth. The original position may be found from this simple fact 50 years hence. It is a beautiful freak of Nature for our guidance, and a thousand others might be found, if sought for.

I will not carry these subjects further, but would call on my brother practicals to be very particular in noticing and booking every occurrence they see in nature. This will reveal its laws, and be useful to posterity, when we are returned as food to our mother earth.

By way of drawing their attention, I will make some remarks on granite, followed by a few questions, which may throw a shade of light on the apparent obscurity of mining. A great deal has been said from time to time on its being primitive rock, or the basis of the earth, and found to be increasing in heat as we descend in depth. Can any one point out a flow of hot water in deep continuous granite? Is not granite rock so cold in the deepest mines as to make the men avoid sitting on it? There is no perceptible warmth in it. What is real granite? I believe the component parts of the Devon and Cornish granite to be genuine; and wherever it is found, in any quarter of the globe, it produces the oxide of tin. Next look at the outcroppings of granite in Cornwall and Devon, where we shall find the intermediate space filled up with killas or slate. There are various opinions as to the origin of this slate rock formation. I have before said that it is produced by crystallization: then a reason should be assigned for the granite being found in those places. My answer to this would be—It is found between north and south lodes. With the district below Redruth I am not sufficiently acquainted to point out the situation of the most tenacious north and south clay lodes, but will make my start from Peever cross lode, which appears to have cut off the granite of the Redruth district, and would ask if granite is found between that and St. Stephens? I am not aware of the site of the cross-lode that there interposes, but I have no doubt as to one being there, near the western boundary of the granite. It should be noticed that granite at all times alters in character for a quarter

or half a mile before it is cut off. There is another of these killas formations between Luxillian and Liskeard. I am not aware of the situations of the cross lodes in this case.

On the east of Liskeard and Linkinghorn, the granite is cut off by Caradon Wood cross lode; and in the Callington district it again makes its appearance on the east of Holmbush cross-lode, and is again cut off by Devon Great Consols cross-lode; and it reappears east of Wheal Friendship and Devon Burra Burra cross-lode, when it continues on east to Exmouth cross-lode, which terminates all the Dartmoor granite, and it never again appears. If these things were looked into, I have no doubt it would be seen that it is these cross-lodes that obliterate the granite; and in all probability it would be found that our great deposites of tin and copper have formed from the strong magnetic current passing through these cross-lodes; and it is near these terminations or changes, either on the sides or ends of the granite formations, that it accumulates.—These are things certainly worthy the miner's attention, and he should endeavour to establish it as a law, or prove that it would not hold good.

I will here ask the following questions:—1. Can any one point out a lode that is commonly called a north and south one, heaved above a few feet by an east and west lode? If so, what is the character and bearing of each lode?

2. Where is there a heave (and what is commonly called a large one—say 20 fms. and upwards) that has not produced ore of some kind on one side of the heave; and, which are generally the largest heaves, those caused by lodes that meet at about right angles, or as caunters, and which are the most difficult to find?

3. Is there a continuous lode, running north of east (say) 5 or 10 points, that is, or was, a productive copper-bearing lode, except about junctions, or in their passing from one south of east copper-bearing lode to another near at hand? In this case it might produce copper from one to the other; but, when left to its own resources, does it continue good or become poor?

4. Is there a productive copper lode without tin on its back, or tin in some other lode near at hand, (say) within a mile?

5. Is there a continuous and productive tin lode that is not running between south and east?

6. Is there a remunerative tin or copper lode in the two western counties, two miles north or south of visible granite—that is, taking the direct line through the two counties as a guide?

7. Are there remunerative lead mines between the productive tin and copper lodes?

8. Are there any continuous and remunerative lead lodes that are not running between north and east, with the exception of casual bunches, about junctions with other lodes? I might here mention that Great Baddern lead lode runs north of east, counting the tin and copper lodes, and has destroyed their tin and copper bear-

ing qualities; not a single lode of them has again paid for tin or copper until they got into St Stephen's district—in fact, from Truro to Newland may be said to be a lead district: no doubt it is between two cross lodes that cut off the granite. Here is a long distance between the outcrops of granite, and lead appears to have crept in, which is often the case in these situations.

9. Do north and south lodes heave elvans? If so, where is this a large heave? Elvans generally run about east and west. Are there any continuous north and south elvans? If so, do east and west lodes heave them, and where can it be seen?

10. Which have been the most productive lead lodes, those dipping east or west? And which the most productive copper lodes, those dipping north or south?

11. Are there any productive lodes stratified—that is, lode and strata running and dipping at the same angle?

12. Can any one point out a lode productive in iron ore on the back, producing 40 per cent. or upwards to the depth of 10 or 12 fms., that ever turned out to be a productive copper lode in depth?

13. What is the best mineral-bearing direction the stratum can meet a lode in?

14. If two lodes run paralel, at a distance—say, 30 or from that to 60 fms. apart—in what direction should the stratum meet them, to have the same effect on each lode? Or, suppose them to be met, agreeably to the answer to my 13th question, what effect would it have on the second lode? Would it be also productive?

15. Mundic is said to ride a good horse, and many backs of lodes often change from gossan to mundic. Then what are these mundics generally on the backs of good copper lodes, sulphurets, or arseniates of iron?

16. How many kinds of ores found in Devon and Cornwall will produce gossan on the backs of lodes, and what is their character?

Before I conclude, I beg to remark that what I have here advanced is my views. It may not be right in every point, neither am I so bigoted as to think it will meet the views of all; facts are stubborn things, and have ever been met by stern opponents. I trust that any of your readers who may reply will do so with their real names attached, and not with a view of opposition, but to aid a mining public, as we are all well aware that mining, though making rapid strides, is not keeping pace with the age we live in. It is time for the able practicals to step over their assigned bounds, and advance boldly, but cautiously, to its aid, as I am quite sure those of the two counties could collect together a list of facts that must materially aid in reducing mining to something like a science. To do this, the foundation, or ground work, must be first properly laid, and then we should have something to build on. True knowledge is power, and only gained by practice. Theory can but imperfectly teach when laws are well defined. As a proof, I admit having worked lodes myself, in my early days, that I then thought promising, which I

would not now spend shilling on, and thousands of others have done the same. Hitherto, what man has gathered by watchfulness and practice has died with him, on account of his not being able to express his sentiments in a way to lay before the public, and if he did, he found no source open but your Journal to record them, and from which he is deterred through fear of being replied to by some theoretical anonymous. If some talented man who has time on his hands was appointed to record all communications from practical miners, and after analysing and putting them into proper shape, with the senders' name attached, they would form a valuable collection, which should be printed and issued annually: it would be a useful miner's guide. In doing this the miner has nothing to fear; he has only to use his own language, so as to show it is sound common sense; and by way of inspiring them to come forward, it should be made a book of reference for companies when in want of agents to select from. I unhesitatingly say that if a man has not got talent to show something of his works in a book of this description, he is unqualified for an agent.

At present there are three ponderous evils in the balance against mining. The first is a class of men that have received a fair education, and from books have learned the rudiments of mining. They set to work to get up a mine prospectus, employing any tool for an agent who will sanction the most glaring lie: no matter whether he is a carpenter, smith, laborer, or miner, they will endeavor to show him off as some man of great experience, making sure no one will be found with pluck enough to expose them; on they go, cast their net and catch unwary fish at almost every draw; when they manage just as the old saying was repecting prize money —sift the guineas in a $\frac{1}{2}$ in. sieve, those that go through belong to the company, and those that remain in the sieve to the promoters.

The second evil is, agents are selected who are not at all times the right sort of men. They are the friends or relations of those that can make the greatest interest on the mine, and are employed to the expulsion of far more talented men who should have been selected. The third, or last evil, though not the least, is ill directed labor, which is sure to follow. It is these things that pull so ponderously in the balance against money. It is well known that one half of the money collected for mining purposes is not usefully expended on them.

Under these circumstances, were we to labor to the end of our lives endeavoring to bring mining to a science it would be useless, unless we can adopt the means to get it legitimately carried out, which I am confident could be done on a plan that I could suggest, if a few spirited practicals were to combine. It would be gratifying to them when old to know that they had assisted to open the door for the self-taught young practical aspirant to run a race and unhorse their overbearing theoretical opponents.

ARTICLE III.

Address of Gen. James L. Minor before the Missouri State Agricultural Society at its Second Annual Exhibition held at Boonville, Oct., 1854.*

Mr. President, and Gentlemen of the Agricultural Society:

Another one of our annual festivals is upon us, and we have assembled again to pay the tribute of our affection, and the homage of our respect to he blessed mother of all the arts. — We have come with an elevated feeling to her temple, where sectional differences, party zeal and personal animosities find no entrance, and where, as I hope will ever be, a spirit of generous rivalry is the presiding genius of its rites. We come here to-day heralded by no pomp and pride and circumstance of glorious war. No roar of artillery, nor millitary pageant announces our assamblage, as one connected with the fierce passions of the human heart, but we bring with us here the quiet assurance of the strength and nobility of that great cause that must ever be the source of all our prosperity, and the steadiest and surest support of our national freedom. It must be a source of congratulation to every true farmer among us as he casts his eye over the assemblage, to witness the continued interest manifested in the welfare of our Society. To promote true agricultural energy and knowledge, I know of no method soe ffectual as an Assocition, like this, which to us is a great Lancastrian School where all alike are teachers and Scholars, where farmers meet on common ground, and where interchange of opinion, result of experiment, comparison of product and of different modes of culture, are the subjects of free and unrestrained conversation.

But while this is a source of congratulation, I regret that we meet to-day, under circumstances not so auspicious as those which greeted our last meeting. Providence, in its wisdom, has withheld from us the showers that are necessary for the opening of some of our crops, and a panic that I hope is groundless, has spread over the land as to the prospect of food. While some of the earlier crops, such as Wheat and Oats, have matured with perhaps an average yield, the Corn crop of the country has suffered beyond any farmer's experienee. If this calamity should teach us more economy in the use of our grain, if it should introduce among us a system of culture that would enable our lands to withstand droughts, if it should teach us the best and cheapest modes of feeding and sheltering stock, and if it should teach us beside, the necessity of a greater reliance on Him who holds in his hand the rain and the sunshine, the blast and the mildew, then this misfortune, which seems so general in our State, and which has excited more uneasiness than all the political, religious and social distractions of the Union, will really prove to us a blessing in disguise.

* The publication of the following address has been delayed by reason of a change recently made in the time of publishing our journal, which occasioned an accumulation of matter for the December and January numbers. But we are persuaded that it will not be less interesting or profitable to our readers than if it had been published at an earlier day. The subject is one which never grows old with the individual of intelligence and cultivated taste; and in the present instance the author has woven a charm around it which will preserve its freshness as long as the beauties and dignity of agriculture are appreciated.

We belong, Mr. President, to an institution the oldest on record. The first born of the earth were farmers, and yet while all confess their dependence on the labors of the husbandman, it is a little singular that for a period of nearly 6000 years, with the exception of a bright interval during the Greek and Roman Republics, agriculture has been regarded as the occupation of the servile and the menial, as a following, (for it was not dignified with the name of art,) that justified no experiment for improvement, and which, in consequence, entitled its humble followers to nothing else than mediocrity in fortune and exclusion from fame. The world has always been more captivated by the splendid than the useful. The triumphal processions of Consuls and Kings, and Emperors and Sultans, have descended to us in history, while the plow that sent forth its elements of strength to achieve their conquests is lost sight of in the glitter of the pageant. And not only have the tillers of the soil been subjected to this oblivion, but they have been compelled to submit to the injustice that makes synonymous in signification the ancient epithet of the art with those that betoken rudeness and wickedness. The terms villain, hind, clown, boar, &c., have been borrowed from agriculture to express the extremes of degradation and vice, a strange and unaccountable perversion of language that can create an identity of feeling between that art, that by constant intercourse with the works of the creator, elevates and purifies the heart, and the human pursuits and human passions that lead to brutality or degenerate into crime.

Nor has our beloved art ever been to any very great extent the recipient of political favor. Governments have forgotten in their rewards the very elements of their strength. The farmer who by his successful labor has supplied the resources of his rulers, has very rarely been selected to guide the helm of empire, in consequence of that wildest of all fallacies, so prevalent even in this day of intelligence, that one part of mankind must do the *thinking*, and the other part the *working* operations of life. Cincinnatus and Regulus and Gideon, Scipio and Cato and Washington, are bright refutations of this error that denies to agriculture the exercise of thought, the abilities of the statesman or the emotions of the patriot.

War has been to our institution its most unrelenting enemy. With its constant drain of men for the supply of its armies, with its ruthless despoliation of the resources of husbandry, with its indiscriminate destruction of the causes of rural wealth, it has entailed upon agriculture curses equally baneful in the demoralization of whole communities, in increased taxation upon labor, and the habits of plunder and prodigality that so often follow to his home the disbanded soldier, and that utterly unfit him for the active and successful culture of the soil.

Peace has been to agriculture the day of its greatest triumphs. The hand that closed the Temple of Janus has always opened that of Ceres. The return to industrious habits and the consequent security of property, which always happen when men become tired of butchering each other, and the voracious appetite of ambition is sated with blood, form the periods of agriculture's greatest success. The world since the downfall of Napoleon has enjoyed until recently an interval of unexampled peace, and in this period the locomotive, the daguerreotype, and the magnetic telegraph have been added to the world's stores of

usefulness, while agriculture has advanced under the same fostering influence, to a degree of improvement that has never occurred to it in any former period of its existence.

And in gratitude, when agriculture rises as it must rise, like some huge Titan, heaving and convulsing the mountains that ignorance and folly and oppression have heaped upon it, one of its best and earliest fruits will be to command general peace to the earth, to convert the sword into the ploughshare, and to divert the fierce and angry passions of men into channels of individual wealth and national greatness.

I have said that our great art is progressive. It is eminently so. It is moving with the stride and step of a giant. Chemistry, its youngest and best beloved daughter, is bringing its rich gifts with wild profusion and filial fondness. Science and learning now find their noblest fields of operation in the materials that they draw from the earth, and the elements of fertility, they return to her bosom. The arts acknowledge her as their bounteous mother, and a beautiful connection of mutual dependence and support is established between the science of agriculture and the kindred sciences of the earth.

But while that is the present condition of husbandry, it becomes a matter of prime necessity that we should be prepared to take advantage of its progress. The farmer of the country must keep pace with its agricultural improvement. The day is fast approaching when we must be educated for our great occupation, and when training very different and far superior to that now learned by the ordinary modes of seed time and harvest, must be acquired by the tiller of the soil if he expects to realize constant profit from his labors. We must learn to avail ourselves of the science that is now so busy in making agriculture the first and most profitable of human pursuits. We must learn of what our soil consists, what it needs and in what it superabounds. What is the proper rotation to preserve its fertility, what modes of culture to adopt, how to preserve and supply our manures, how to feed and rear cattle to the best advantage, how to rectify the abuses of injudicious cultivation, and, in a word, how to achieve the greatest results with the least expense.

If we in Missouri, with our great advantages, fail to learn these things, we shall soon be left behind in the great march of agricultural improvement, and we shall resemble the snags that remain fixed and stationary in the bed of the noble river that flows at our feet while the current is bearing onward upon its bosom, a commerce as mighty as its own volume of waters, and as unbounded as its own ceaseless flow.

We must remember that *we* already live in the Far West, and cannot emigrate to more fertile regions, when we have reduced our lands to a condition that will no longer support us. By that time California will be full, Texas settled, New Mexico replete with all the population it can sustain, Kansas and Nebraska teeming with their complement of inhabitants, and we shall be compelled by sheer necessity to sit down quietly on our own farms, and feed our lands that they may feed us. Fortunately for us our soil is a good one, and still more fortunately, we shall sooner or later be driven to methods of culture and habits of economy that will decrease our labors, while they increase our wealth.

To enable us to do these things, we all must call in the aid of science. Let me here not be misunderstood. By science I do not mean the processes of abstract calculation and costly experiment. I do not mean the knowledge that requires a lifetime of laborious study, or the highest efforts of the human intellect, but I mean the knowledge of facts and results that are equally accessible and beneficial to all. I do not mean that every farmer must become by means of close closet study a man of science, but I mean this: that he must learn to avail himself of the science of others. As an illustration, we do this daily in the use of domestic and agricultural implements that science, laborious science, has perfected for our use.

To some extent, the farmers as a class are scientific men. They work by the same laws that govern the chemist and even nature herself. They know the effects, on their grain, of the rain and the dew, the frost and the heat, as well as the philosopher, who is often obliged before any of his deductions can be fixed, to avail himself of the experiments of the tillers of the soil.

But there are some things that we cannot learn by our own observation. We cannot tell, for instance, what elements of fertility our soil has or lacks, what portions of it our crops exhaust, and what we must apply to it to restore its virgin freshness. It is true we can find out these things by a series of constant experiments, but these experiments must, of necessity, be slow and expensive. Would it not be cheaper and better to take up a handful of earth, and say to a chemist: "Here, sir, is a portion of my farm. I cannot produce from it crops that will pay me for my labor. Can you tell me, sir, what it lacks, and how I shall supply it?" The answer will be prompt and satisfactory—"I can." And the result of this advice—if the chemist is skillful—will be a crop of double quantity.

If I am met here by the objection that chemists are not always convenient, nor the manures he recommends, accessible, I will answer, that in a few years the first plain principles of agricultural chemistry will be understood by nearly every intelligent farmer in Missouri, and that the diffusion of this important information will be an object of State pride, as its geology is at present.

In answer to the second objection, that the manures may not be convenient, I will reply by the broad assertion, that, in, beneath, and below every arable soil upon the globe, nature has planted the exhaustless sources of perpetual fertility, and that the same causes that originally gave to the soil its productiveness, will work on forever in an unbroken and beautiful chain of exhaustion and supply. These processes are made for use, and it is a part of God's providence that sooner or later we shall be compelled to use them.

It is not for me, a young farmer, to cast reproach upon the farmers of my State, but I am confident that it has occurred to the observation of nearly all who hear me to-day, that many of us cultivate our lands as if we believed that their natural fertility could never be exhausted. Let me assure you that there is no error so fatal to agriculture as this. It has been the bane of every country that was once fertile but is fertile no longer; and I do earnestly trust, and I believe it too, that the increasing light our labors shall derive from science, will check, to a

great extent, and before the remedy becomes necessary, this great waste of one of God's noblest blessings.

Agricultural chemistry has taught us that the Earth is composed of elements that enter, in various proportions, into the composition of different plants, and that if any soil lacks any one, essential to the growth of a plant, it will not mature there. It has taught us also that plants abstract from the Earth many of the elements of fertility, and that it will be necessary to restore them before the soil is capable of producing the same crop; and it teaches us also that some plants deposit an excrement from their roots—that while, perhaps, beneficial to other crops, will be certainly fatal to the original plant, if cultivated in direct succession, and without the application of some corrective.

These simple truths that now startle us with their new name of Agricultural Chemistry, we all knew to some extent before, and by their proper application we must expect to preserve the original freshness of our virgin soil.

In illustration of these simple facts, I will read one or two of the many recorded instances:

FIRST EXPERIMENT.

Mr. Reverdy Johnson, says the "American Farmer," purchased in 1848 a small farm near Baltimore, in the last stages of impoverishment. Such was its reduced condition that the last crop of corn was not more than a peck to the acre. He states that all the vegetable matter growing on two hundred acres of cleared land, including briars, sassafras and other bushes, if carefully collected, would have been insufficient for the manufacture of one four horse load of manure. He applied to Dr. David Stewart, of Baltimore, an able chemist, who rode out to the land, and procured specimens of the farm, which he carefully analyzed. He found that it contained an abundance of lime, potash, magnesia, iron and organic matter, duly mixed with alumin and sand; one element only of fertile soil was wanting—phosphoric acid—and of this there was no trace. He commenced an application to the soil of biphosphorate of lime, a preparation of bones, as the best mode of supplying the deficient element. The remedy was given at an expense of ten dollars per acre. It was the one thing needful—health was restored to the exhausted patient, and the grateful soil yielded last year twenty-nine bushels of wheat to the acre. Nothing else was applied—indeed, nothing else was wanting. Here was a beautiful triumph of science. There is no doubt of the facts. The experiment came under the observation and attracted the attention of hundreds. It was detailed by Mr. Johnson himself, and various other worthy of perfect reliance.

SECOND EXPERIMENT.

If a cabbage be suddenly pulled from the ground, and the dirt washed from the surface of its stem, and it then be plunged in a jar of chemically pure water, the following phenomena will take place: After a short time the water will become milky, and in a few hours several flocculent particles will be seen to descend to the bottom, until, if the cabbage be of ordinary size, and the jar six inches in diameter, a deposit of one inch depth of semi-starch like consistency will occur. If this be poured around the roots of another cabbage, it will kill it—if

poured around a beet, a carrot, or a parsnip, it will materially increase its growth. Thus it will be seen that the excrementitious matter of one plant is pabulum to another, and hence the necessity for a rotation of crops, a plant not being able to grow in the presence of an excess of material unfriendly to or not required by its organism.

Some crops do not throw off excrementitious matter. Thus the onion-beds of Wetherfield have in some instances been grown on the same soil for a hundred successive years. And this, I suppose, is the case with the hemp crop.

Now, it appears from these facts that the earth must be fed to epable it to feed us. It must be supplied with food, as our animals are supplied, if we look to it to reward our efforts, and to render profitable the labor of our hands. I believe it is a conceded fact among farmers, that no well tilled soil can be exhausted, and that the soil can be cultivated each successive year with profit, by a judicious rotation of crops. The earth is a beneficent mother, and never fails to make bounteous returns for all the well directed efforts of the sons of labor. The converse of the proposition is equally true. Ill directed and injudicious cultivation, forcing from the soil successive crops of the same grain, and from which the aliment necessary for their support has already been exhausted, taking from the earth by close grazing the remnant of the crop, and the plants and grasses that Nature, in her recuperative energies, causes to spring up to retard exhaustion and preserve fertility, will soon force the farmer to abandon his system or abandon his home.

I rarely see one of these ill-cultivated fields, covered with a rank profusion of weeds, impeding the farmer's efforts, that I do not feel like making to the owner the same address made by a certain Captain to his men, on the eve of battle: "Men, there is the enemy—if you don't kill them they'll kill you."

We have in Missouri generally a soil that will bear a great deal of improper tillage, and which is easily restored to fertility, for the reason that the sub-soil is of clay. Of all the sub-strata, gravel, sand or clay, the last is the best, on account of its great powers of absorption and retention. As a simple illustration of the qualities in this respect of these soils, I will refer to an experiment that anybody can try:

Fill three jars (common green bottles, without a bottom, reversed will answer, first placing a piece of thin cloth over the hole of the neck,) within an inch of the top with soils, containing the first about 1-6 part of clay and 5-6 of clean sand, well mixed; second one about one-third charcoal and two-thirds clean sand, aud fill the third one with clean sand; then fill up all these with the drainings from the manure heap. The liquor through the pure sand will come out nearly as it went in; the other two will have left much of their color and all their smell with the charcoal and clay which have absorbed them.

And it is seriously recommended to the farmers of Massachusetts to haul clay as a fertilizing compound to their sandy and stony lands. Here we have no such need, for our sub-soil is of clay, and we can bring to our surface by deep plowing this element of fertility. As a further evidence of the fertilizing properties of clay, I need only call to your recollection what every one of us has observed, that clay tak-

en from a well or pit and spread over the surrounding earth, is sure to produce a crop of great luxuriance, deep color and abundant grain.

But because we have this fertilizing substratum, we must not fold our hands and say, "Our lands need no manure—they are rich enough without it — we have beneath us the elements of perpetual fertility." If we acted thus, we should soon learn to our cost, and some of us have learned it already, that there is a wide difference between having valuable substratum, and making its valuable qualities available — as much difference as between the block of marble and the exquisite statue, that only labor and skill can produce from it; as much difference as exists between the rough ore upon our hills and the locomotive that science extracts from it. No, we must avail ourselves of the means science, (or, if you prefer it, experimental knowledge,) has pointed out.

One of the most important and successful of these means, is a system of deep plowing.

We all remember the story that we read in childhood of the dying farmer who told his sons that there was concealed in the field a great treasure, and they must dig to find it. Taking the old man's word literally, they dug the whole field over without finding the object of their search; but in looking back over the extent of their labors, they were surprised to see an unusual amount of vegetation in the track of their work; and they very wisely concluded that, by the treasure, their father meant the rewards of industrious labor. In inculcating this moral, the fable unconsciously taught the equally great truths of the merits of a deep and thorough stirring of the soil.

The effect of all plowing, whether light or deep, is to "admit air and moisture to the soil, and to permit the roots to travel to a greater depth by loosening the particles of earth." Admitting this, is it not evident that the deeper we plow, the more air and moisture are introduced into the ground, the greater number of particles are loosened, and consequently the effect must be greater?

There is a great deal of wisdom in the practice of the old farmer who followed the rule to sow turnips on the 25th of July, wet or dry.— But, it was objected to him, if there should be no moisture in the ground? "I'll plow until I raise moisture!" And this is not so difficult an operation as one would suppose.

It is well known that, when cold surfaces are exposed to the atmosphere, on a warm day, drops of water will gather on them, by the process of condensation. You have all observed a pitcher of ice-water, even on the hottest days of summer, covered with drops, which is produced by the condensation of the moisture of the atmosphere upon a cold surface. Now this same principle when applied to deep plowing produces its most important results. By turning up a deep soil you present a cold surface to the air, and the moisture not only condenses upon the surface itself, but by pulverizing you increase this process, and enable the atmosphere to circulate among the particles below, which are thus made the continual recipients of the moisture from above. We all know the value of moisture to the soil. The lamentable experience of this year's drought will give to this opinion a painful conviction of its truth. Another good result from deep plowing is the burying to a greater depth the noxious weeds that impede

the farmer's progress through his fields, thereby ensuring a greater amount of manure in the shape of matter that thus becomes decarbonized. Nor does the farmer lose anything in the amount of actual work expended, for where he plows his lands deep, he will find his subsequent labors lessened, and his teams less harrassed, on account of the previous pulverization of the soil.

Another error against which we must guard, is the cultivation of too much land. This is an evil which, in the West, it will take a long time to eradicate. The vast extent and cheapness of our valuable lands —the insane desire of adding acre after acre to our possessions, and the constant practice induced by superficial and improper tillage, of bringing new fields annually under the plow, and the necessity for a superabundance to supply our wasteful methods of gathering and feeding, will, I am afraid, make my words of caution on this subject a labor of love. It will take something stronger and sterner than advice to correct this evil. If it is possible to convince you that you can make two blades of grass grow where only one grew before, it would be easy to convince you that, as a matter of course, one-half of the land would produce the same result. It is not the best farmer, in my opinion, who cultivates the greatest extent of land or raises the largest crops, but he is the best who does these things with the least expense.

I read once a pretty story of a Sicilian peasant that had three daughters. When the eldest was married he gave her one-fourth part of his vineyard, and his annual crop after that was the same. When his second daughter married, he gave her one-fourth, and still his remaining vines bore the same quantity of clusters as before. When the third daughter married and received her equal portion, his harvest was as large as ever. The secret lay in the fact, that he bestowed on one-fourth part the same skill and labor formerly expended on the whole vineyard, and with the same result.

In a trial recently had in Kentucky, there were nine competitors for the premium corn crop of that State, each of whom cultivated ten acres. The average crop was one hundred and twenty-one bushels and twenty-four quarts to the acre, (or, to count by western measure, twenty-four barrels,) while the highest was 189 bushels and one quart —more than thirty-seven barrels. Now it may be objected, that these farmers devoted all their time and labor to these ten acres. On that point, the record is silent. Even if they did, the farmer who raised the largest amount gathered, from his ten acres, 380 barrels—more in all probability than he needed, and more than is made by ordinary cultivation from forty-five or fifty acres, and with less labor no doubt than is bestowed on this last mentioned quantity of land.

But cost his experiment what it may, it was invaluable, because it showed the capacity of the soil, the effect of proper cultivation upon it, and the policy of cultivating less land. If such an experiment shall teach our farmers a system of culture that will add only one bushel more to the acre, it will be cheaply purchased by the sacrifice of the labor of a score of years, for it will add millions to the general wealth.

While the system of cultivating less land will not only add to individual comfort and prosperity, it will also place in a state of rest many of our fields that already require repose, and thus enable them to re-

cover from the atmosphere and the earth the lost elements of their fertility.

As to the other means of successful farming, such as the selection of good seed, early culture, the extirpation of weeds, &c., these so naturally suggest themselves to every farmer that they need only this passing notice.

There is, however, one essential element of success that I can not pass over in silence. It is the use of the best agricultural implements that can be procured. And of these, first in rank, foremost in utility, unsurpassed in its results, and most important in its action, is the all-glorious plow. Blessed be the memory of the man who invented this great implement of agriculture. His name unfortunately is lost in the unfathomable abyss of antiquity. If known, it would deserve to be inscribed on a monument of the world's gratitude higher than obelisk or pyramid. As we cannot honor the inventor, let us give honor to the invention.

As I have not language to do justice to the value of the plow, I must use for the present the eulogy pronounced on it by a chief of one of the South Sea Islands. A Missionary had arrived there, and with a knowledge of its great value as the aid and pioneer of Christianity, had carried with him a plow, and also a yoke of oxen. The chief and a large crowd of his followers had assembled to witness its first operation in doing the service that there, as in all savage countries, was done by the females. After the plow had progressed for some distance, turning and pulverizing its neat furrow, the chief could contain himself no longer, but jumping up, he clapped his hands and exclaimed, "Why, it's equal to forty women!" Now, I value my peace in this community too highly to say that any plow ever was or could be invented that would equal forty American ladies, but this I will say, that if that chief was here to-day, after casting his eyes over this bright assemblage, he would admit the impression was the same, chastened and softened, however, by the blended influence over his mind of the useful and the beautiful.

It is a singular fact, that this instrument, though confessedly the most useful of all, should have received so little attention, and been, until lately, the subject of such scanty improvement. That it was an improvement whose usefulness was suggested to every mind, is apparent from the fact that nearly every nation, civilized or savage, used it. The Indians of the sea-coast used for this purpose the bones of fish, and the Indians of the interior the shoulder-blades of the animals they had slain in the chase. Yet, the same plow that was used in Virgil's time, is now used in many parts of Europe, in Mexico and South America, and it is a fact, almost too startling for credit, that it is only about eighty years ago that iron plow-shares were first invented. The plow previous to that period was generally a forked stick of timber sharpened, to which were attached handles and a beam. The effect was only to stir the soil, not to turn it.

The modern improvements made on this implement have been marked by extent, application and variety. For one of these, we are mainly indebted to one of our greatest statesmen, philosophers and patriots, whom all men now delight to honor, and whose name is inseparably connected with the achievement of our liberties. I allude to

Thomas Jefferson. "More than fifty years ago, he was intensely occupied in contriving a mould board of the least resistance, the benefit of which is too well known to every farmer, and I have the authority of a French standard work of the highest reputation for saying, that Jefferson was the first who ever gave any formula by which the proper curve could be given to this important part of the plow, and thus established a fixed rule for what was before a matter of mere imitation—I had almost said of mere accident."

The extent to which the improvement of the plow has been carried since the invention of the iron ploughshare may be known from the fact that, before that period, the plowman could disturb but 1-20 of the weight of soil that may now be disturbed, or in other words, a modern plow can do more then five times the work of a plow before the substitution of iron for wood; and as improvements go on, this disproportion in favor of our plow must be greatly increased. If our mechanics can succeed in combining in proper proportion in our plows economy of material, perfection of shape, greatest possible ease of draft, consistent with a due performance of its powers, they will have given to the world its brightest boon, and laid upon agriculture a debt it can never repay.

But the plow is not the only implement that claims our attention. The reaper comes to our aid, with its life-like movement, at a time when every hour lost by the farmer endangers his crop. The corn crusher, the straw cutter, and the thresher, the wheat fan, the horse rake, and the plantation mill, are all at hand here, to supply man with power, obedient to his will and ready at his call.

With these appliances around us, a fertile soil beneath us, and a genial clime above us, I scarce know a limit to the productive energies of well directed agriculture.

"Oh Fortunati, sua si bona norint."

But with all these blessings agriculture is not so popular as it deserves to be. Too many of our young men consider it as a mere means of subsistence, as too slow and tedious for this fast age, and parents more fond than wise too often educate their sons for professions already overstocked, and send them to cities, and marts of trade, where many a weary hour is spent in waiting for employment, or in the dissipation consequent upon idleness. Business in cities holds out the inducement of speedier and larger profits. But we must remember how very few among the merchants and traders of our country ever arrive at fortune, and let us also remember how very few skillful farmers ever fail to realize it.

Let me counsel my young friends to deliberate well and long in selecting between these occupations of life. In the one, the risk is always uncertain, and the prospect of ruin imminent. In the other, success is as sure as the promise of the Great Jehovah, who has said, "while the earth remaineth, seed time and harvest shall not cease." In the one, there is a constant temptation to vice and immorality, that many a youth has found himself unable to resist. In the other, there is an elevation of sentiment, and a deep religious feeling that always results from a constant association with the works of nature. In the one, there is the close confinement that brings with it the faded cheek, and the premature wrinkle; in the other, there is the ruddiness of

health, and the sweet repose of labor. With many of the rising generation there is a strong ambition to ascend to the higher grades of life, and a consequent disdain for manual labor. Did these young gentlemen ever reflect that there is no situation in life where labor is not required, and that to achieve eminence in any profession or trade, often requires more bodily fatigue than falls to the lot of the agriculturist? If professional and mechanical labor are not considered disreputable, why should agricultural toil be regarded with so much dislike. Labor is necessary to us all, and it generally brings with it the sweet rewards of "health, peace and competence."

"There is not a man from England's King
To the peasant that delves the soil,
That knows half the joys existence can bring
That does not partake of its toil."

Let me tell the aspirant after political and professional fame, that after he has achieved success in his pursuit, and gained the applause of men, which ceases when he retires from the public gaze, that when he looks back upon his successes and his triumphs, he will feel far less true joy in the retrospect, than he, who with a truer perception of the dignity of human labor, has reclaimed from barrenness the fields of his home, has clothed its hills and dales with beauty and with verdure, and has wounded no heart, and crushed no rival spirit in the prosecution of his noble work.

And let me moreover tell father and son in this assemblage, that, before long, agricultural education will assert for itself a place among the highest attainments of the human intellect, that the art, now so despised, will be the chief support of the temple of science, and that, under its fostering influences, more speedily than under any other, will men achieve for themselves the fame and the wealth that are now the objects of such greedy pursuit.

As a class, farmers have learned to depend upon themselves, and it is a gratifying evidence of the prevalence of this feeling that while we contribute to the support of government, nearly all its revenue, we rarely ask any of it back in the shape of favors. While governments spend millions for improvements in the arts and sciences, while it offers premiums for implements of war that destroy human life in the greatest profusion, and in the shortest time, the same records show no favors extended to agriculture, no reward for the improvement of the soil, and no return for the labors of him who in laboring for the cause of husbandry is laboring for the cause of human progress.

As American farmers, we occupy the most desirable position on earth. While in Europe the tiller of the soil owns no land, but works for the landholder, making for himself a bare support, while his labors enrich the favored few; here, every man is or can be lord of his own domain. Every tree that he plants bears its fruit in due season for him alone; every acre is his, to plow and sow and reap and till, just as he pleases, and every dollar that he earns is so secured to him by law that it is a felony to take it from him without his consent. In England, one man out of every 470 is a landholder, or to use the strong language of anothor, "For every one privileged man, there are 470 who have no right to put sheir foot on any land but the public highway." Here our children stand an equal chance to be President or

Governor, Legislator or Judge, as the children of the wealthiest and the best among us. There, there is an impassable gulf between the children of the rich and the poor, the peasant and the noble. Here food is so abundant that it leads to wastefulness; there, there is a constant apprehension that the scanty meal of to-day may not, through sickness or other accident, be supplied for to-morrow. Here law protects the necessary comforts of a farmer's home; there, a heartless landlord may seize the last bed, and render houseless and desolate the family of his poor tenant. There, one-tenth of the peasant's labor is taken from him to support an established Church; here, we worship God as we please, and no human power can force from us any other than our voluntary oblation to the ministers of religion.

These are some of the points of comparison between the condition of the farmer in America and England; that England whose abhorrence to American slavery is in such strange contradiction to the bondage of her own peasants; that England whose unceasing cry against us for the existence of an institution that her own avarice has brought upon us, is so speedily and so fearfully echoed by the smothered cry of her own white slaves for food, for education and for equal rights.

This comparison of the relative condition of the two classes of farmers, that could be extended almost indefinitely, is enough to satisfy us of our superior advantages, and excite our gratitude to the Creator for such blessings, and teach us to value as dearer than life our civil and religious freedom.

Gentlemen, the surest safeguards of our political institutions are with us, for our agricultural blessings are too numerous, too diversified and too closely connected with individual and civil liberty even to be surrendered at the call of faction, or sacrificed upon the altar of party. Our pursuit is eminently religious in all its bearings, for I defy any man who has the ordinary perceptions of humanity, to walk through fields luxuriant in verdure, through forests in which autumnal hues of every shade are so richly and so beautifully blended, to watch the swelling bud, the waving corn and the golden harvest, and not feel the conviction strong upon him that there is over man, a superintending providence of love, and wisdom and power. Our profession is also the best school of thought, for it tends to relieve nearly every want to which human nature is subject, elevates man, by daily communion with the fairest works of God's creation, and its intervals of repose are intervals of health and security. It is also the loftiest school of patriotism; our homes, our firesides and our fields, are connected to us by ties of love, so sacred and so strong, that no invader of our land will ever reach them save over our dead bodies.

And if it should happen that any foreign foe should set his foot upon our soil, it will be the glorious task and the glorious duty of the tillers of the earth to rescue our beloved land from the degradation of conquest.

> Yes, trust to God, to freedom and mankind,
> If their chained band-dogs foemen should unbind
> These stately forms that bending even now,
> Bow their strong manhood to the humble plow,
> Shall rise erect, the guardians of the land,
> The same stern iron in their same right hand,
> Till our hills thunder to the parting sun,
> Their sword has rescued what their ploughshares won.

ARTICLE IV.

Valley of the Ohio.

BY MANN BUTLER, ESQ.

Continued from page 93, vol. XIII. No. 2.

Reinforcement under Col. Logan; Retreat of the Indians; Clark's first expedition against the Indians on the Miami and Scioto in 1782; No formidable Indian invasions of Kentucky after this expedition; Rise of the Moravians in Europe and Pennsylvania; Visit of Zeisberger to the West in 1767; Establishment of the Moravian towns on the Muskingum in 1772; Schoenbrunn, the first Protestant settlement made in the valley of the Ohio; An Indian Christian society of 300 or 400 persons established; Indian outrages on the Moravians; Col. Williamson's first party against the same; Second party with the massacre of the unresisting Moravians.

On the 20th, Colonel Logan reached the battle ground, which is about 36 miles from Bryant's station, with 450 men. But the enemy, as had ever been their practice, after great success, had not staid to follow up their advantage with other heavy blows; but had retreated to their towns, on the opposite side of the Ohio. There was no longer any fresh *sign*, and it only remained to bury the melancholy remains of their fellow-countrymen, mangled by the ferocious customs of Indian warfare; torn and disfigured by wolves and buzzards, and swollen by the intense heat of an August sun. These last rites to the dead, of whom Boone says they counted 43 besides others scattered about whom the critical situation and exhausted condition of the troops did not permit them to discover. Col. Logan returned to Bryant's station, and dismissed his troops to their respective homes. Let it not be forgotten that at this time, the fighting men of Fayette county, embracing then the whole country north of the Kentucky river to the Sandy, did not exceed *one hundred and thirty;* while the loss at the Blue Licks amounted to sixty or seventy.

But did the brave pioneers despair under circumstances of such discouragement and distress? This was what they were little inclined to. A retaliatory expedition was soon thought of under the command of Gen. Clark, then stationed at Fort Nelson, at the Falls of Ohio. Every consideration of safety and necessary retaliation dictated the measure, to keep the people from despair and abandoning the country.

A meeting of officers was called at Clark's quarters, where all the measures necessary for an imposing expedition against the enemy were adopted. Volunteers, as has ever been the practice of

Kentucky, poured in—"soon was seen the utmost activity of preparation. Both officers and men volunteered; and beeves, packhorses and other supplies offered by those who could not leave their home.* But in every case where property was offered or impressed (for impressment was authorised where necessary,) it was valued, and a certificate given the former owner, as evidence of his claim to compensation should the government make provision for payment, which at that time was uncertain." "Bryant's station was appointed the rendezvous for the upper part of the country; the Falls of the Ohio for the lower; and the mouth of Licking the point of union" for the different detachments. Gen. Clark assumed the command of this second expedition against the formidable tribes of the northwest, most contiguous and dangerous to Kentucky. Cols. Floyd and Logan commanded the two regiments, into which the body composed of about 1000 mounted men was divided. They assembled at the appointed spot, about the last of September, 1782, and took up their march for the Indian towns on the Miami and Scioto, on the "4th of November, 1782."

The expedition proceeded with the efficiency ever characteristic of its chief, while in the pride of his energy, and reached the first Indian town, the principal one of the Shawnees, on the 16th inst. Immediately detaching strong parties to different quarters, in a few hours two thirds of the town were laid in ashes, and everything destroyed except such articles as might be useful to the troops; the enemy had no time to secrete any part of their property which was in the town. The British trading post at the head of the Miami,† and the carrying place to the waters of the lake, shared the same fate, at the hands of a party of 150 horsemen commanded by Col. Ben. Logan. The property destroyed was of great amount; and the quantity of provision burned surpassed all idea we had of Indian stores.‡ The loss of the enemy was ten scalps, seven prisoners, and two whites retaken; ours was one killed and one wounded. After laying part of four days in their towns, and finding all attempts to bring the enemy to a general action fruitless, we retired, as the season was far advanced, and the weather threatening." The expedition extended its ravages through the different

* Marshall, I, 146.

† Loramie's Store, no doubt.

‡ Gen. Clark's letter to Gov. Harrison, App. copied by the author from the Illinois papers, in the Executive department of Va.

Chillicothes, Pickaway and Will's town, with the same desolating effect.

This campaign trifling as its execution was, in comparison with the slaughter of the Blue Licks, appears to have put a period to the *formidable* Indian invasions of Kentucky. After this time, she was only exposed to straggling and small parties. Such an effect may reasonably be attributed to so overwhelming a display of force immediately after the battle of the Blue Licks.

This year, which had proved so disastrous to the white settlers of Kentucky, and the last, were particularly fatal to the Moravians. These were a sect of devoted christians, better known by their peaceful habits and kind offices, than for any distinguished success of their labors. They are believed to be of German origin, one of the numerous offspring of the free mind of Germany; which, in the general agitation and excitement of the European intellect, during the 16th and 17th centuries, threw off the tenets of the Roman Catholic church. This body of christians, known by the benevolent name of "*Unitas Fratrum*, or *United Brethren*, or *Moravians*," seems to have grown up about 1722, in the Upper Lusatia, a province of Saxony; and principally to have flourished among the simple mountaineers of Bohemia and Moravia. Their tenets, in their technical aspect, which are far short of characterizing the morals or even religion of any people, seem to have been "a general adherence to the Confession of Augsburg," in 1530, which constitutes, it is believed, the foundation of the Lutheran church of Germany, "as most congenial to the views of a majority." "They insist upon individual experience of the practical efficacy of the gospel in producing a real change of sentiment and conduct, as the only essentials of religion."* But this society is chiefly known to us in America, as the unflinching friend of the Indian, and messenger of peace, mercy and industry to the benighted children of the forest. As early as 1742, not more than twenty years after the public notice of those exemplary followers of Jesus Christ, they founded an establishment of Mohicans and Wampanoags near Bethlehem, in Pennsylvania, at Gnadenhutten near Bethlehem, in 1772; at Wyabusha on the Susquehanna. All these societies were successively and forcibly broken up, owing, it is to be apprehended, to the sympathy and devotion to the Indian,

* History of the Religious Denominations in the U. S., purporting to be approved by the Society. 2d Edit. Harrisburg, Pa. 1848. p. 380.

which the surrounding society was not prepared to appreciate. Still the perseverance of these true missionaries of the Cross did not relax. Christian Frederick Post, whose peaceful labors in 1758 among the Delawares has been already commemorated, in 1761 determined to exert his missionary labors among the Indians on the Muskingum, vainly calculating that this might be sufficiently removed from collisions with the white man. Upon the banks of this stream, about a mile from Beaver's Town in Pennsylvania, he built himself a cabin. In 1762, he was accompanied by the well known Heckewelder, as an assistant in teaching and civilizing the children of the red men. The Indians approved of this scheme, and Post prepared to clear a few acres, whereon to raise corn. This instantly and justly excited the jealousy of these sons of nature, who had suffered so constantly and steadily by the approach of the white settler. They told him, they feared that he had changed his mind, for instead of teaching their children, he was clearing land, which if he did, others might do, and then a fort be built to protect them, and then the land might be claimed, and they be driven off, they said, as had always been the case. In vain, Post alleged that he did not wish to be a burden on them, and only proposed to raise his own corn: the Indians replied that he must live like the French priests, who looked fat enough, though they did not raise corn. It was probable the Great Spirit would take care of him, as he did of them, if he wished him to be his minister. So they would only give him a garden spot. This Capt. Pipe, the celebrated Delaware chief, stepped off for Post, and with this, he had to shift as well as he could.*

No other Moravian Brethren visited the West till 1767, when Zeisberger went to the Alleghany river, and established a mission against the will of the greater part of the Indians, who "saw nothing but evil in the white man's eye. The fruits would not ripen, the deer would not stay, where the white man came."

How expressively true and characteristic of the incompatible temper of society in the civilized and the savage condition! The Indians on the Muskingum won over by Post's patient christian spirit, invited his brethren to come and live with him, on their favorite river, away, vain imagination, from the blasting influence of the white farmer. The Wyandots joined in this request. And

* Heckewelder's Narrative.

after mature deliberation, the proposition was agreed to; and on the 3d of May, 1772, Zeisberger with twenty-seven of his native disciples founded Schoenbrunn upon the Muskingum river, the first *Protestant* settlement made within the valley of the Ohio. Here, in imaginary safety, the christian Indians on the Susquehannah and those on Big Beaver removed. Here, about sixty miles from the village of the hostile Indians, "and not much farther from the whites; hence they were called the half way houses of the warriors." Both the parties at war, Indians and white men, passed by or through the Moravian towns, and committed whatever violations of neutrality their resentments or their caprices dictated.

Nor were the Moravians, including their converts, exempt from the suspicions of both parties for being auxiliaries of their enemies. Often, it is said, had their neutrality been violated in favor of the whites, by communicating intelligence of schemes of Indian incursion. The attack upon Wheeling Fort, or Fort Henry, in 1777, had been distinctly announced to the whites by the friendly Moravians; and might not similar warning have been conveyed to the Indians? It would have been but fair between the belligerents, and quite consistent with the Moravian abhorrence of war from all quarters. Here, these exemplary fathers of a Protestant church devoted themselves to christianizing and civilizing the Indians, with signal success. They exerted their best energies to keep down the spirit of war and devastation, so prevalent in a border country by teaching, "that it must be displeasing to the Great Being who made men not to destroy men, but to *love and assist one another.*" In the perilous position which has been described, the pious and philanthropic labors of these devoted servants of humanity were blessed with success, so that they gathered a society of three or four hundred Christians out of these Ishmaelites of our wilderness. The arts of peaceful and civilized life were sown, and were producing much fruit worthy of the good seed; the red man of our forests was, for the *first* time, becoming reclaimed from his ferocity; and the standard of Christian and practical civilization was successfully set up in the wigwams of the savages.

But a blight was coming over this goodly harvest; war with all the fury of barbarism had burst out again between the Indian and his white neighbors. This condition had continued with more or less aggravation through the revolutionary war, until the fall of 1781. At this time the hostility of their unconverted countrymen

broke out against the praying Indians, as the Moravian converts were expressively called; their towns and their property were destroyed, and the missionaries were taken prisoners to Detroit. After some confinement, the British commandant became satisfied of their innocence, and dismissed them to their beloved flock, for whose religious and social interests they had braved such dangers, and suffered such privations, as the pure spirit of Christian philanthropy only could prepare the soul to endure. The Indian converts had, after their capture and removal from their towns on the Muskingum, been left on the Sandusky plains, on the border of Lake Erie. Here, most of their horses and cattle perished from famine. This, too, when the labor of the Christian Indian had raised abundant corn in their Muskingum fields, which they were not allowed even to gather. But the worst calamities of this band of Christian Indians, who seem so unhappily to have been before their time, and out of place, for the enjoyment and propagation of their peaceful doctrines, came from men bearing the name of Christians, as well as themselves; and professing the same mild merciful worship of the Heavenly Father.

About the latter end of this year (1781) the militia of the Pennsylvania frontier, (yet however in dispute with Virginia,) came to a determination of breaking up the Moravian towns. For this purpose a party of men, under the command of Col. David Williamson, proceeded to the Indian villages. They, however, found the towns almost deserted; they had been anticipated in the work of barbarity by the suspicions of the hostile Indians. The few prisoners taken were delivered in safety to the commandant at Fort Pitt.

After a confinement of some time these prisoners were released, nothing, it is presumed, being found against them but their red skins. This excited the deep displeasure of the frontier men, infuriated as they had almost necessarily become by the horrible barbarities of Indian warfare. This release may be considered the remote cause of the subsequent atrocities, which are about to be related.

In March, 1782, the militia of the same portion of the country resolved upon a second expedition against the Moravian towns. Col. Williamson again commanded the men, if command can be applicable to such insubordinate and lawless movements. The party amounted to about eighty or ninety persons, collected without any

public authority, but solely moved by the private determinations of the party, and so far, and no further, is the character of our country saved from some portion of the flagrant enormities, which were perpetrated by this self appointed military body. The object avowed was to remove the Moravian Indians peaceably; but certainly to destroy their houses and their crops. In this way, they wanted to break up the half way asylums for the depredators on the frontier; if they did not, as was perhaps unjustly suspected, originate in these villages. The white party took up its line of march from the Mingo bottom on the Ohio river; and on the second night thereafter, they encamped within one mile of the town of Gnadenhutten, the middle town of the Moravians, which extended on both sides of the Muskingum. When they had reached the river, it was divided into two equal portions, one of which was ordered to cross it about a mile above the town, and to take possession of the western part of it; while the residue of the force was separated into three divisions, one to march above, another below, and a third opposite to the middle of the towns, with orders to occupy them. The detachment intended for the western attack, on reaching the river bank, found no means of conveyance except a large sugar trough designed for holding sugar water, or the sap of the sugar maple tree; even that was on the opposite side of the river. The ice was floating and the waters high, when a young man, by the name of Slaughter, Cassius-like buffeted the flood, and safely brought the trough over. But it was only capable of holding two persons. It was then concluded to place the arms and ammunition of the men in this vehicle, while they should swim over. Thus, at the very outset of the attack, were the invaders placed at the mercy of the Moravians; had they intended hostilities, even in defence of their homes and their families.

When about sixteen men had effected the passage of the river, two of the sentinels who had been posted in advance, discovered a Moravian Indian, by the name of Shabosh; they shot and tomahawked him. The eastern party was then ordered to commence the attack in order to anticipate the alarm which must be produced by the firing. The detachment on the west proceeded to the town on that side where they found the Indians in a cornfield gathering the crop of corn which had been left on the stalk, when they had been hurried off by their own countrymen, in the preceding fall. The Indian party had obtained leave from the Delawares to return

to their old town, for the purpose of getting a supply of provisions to keep their people from starving. Would the situation of a people well be more deplorable than this? Permitted by the mercy of Indians to come back and collect the fruits of their own labor for the support of their suffering people; and at their own towns, while at perfect peace themselves to meet a hostile party of whites, who treated them with a ferocity alone worthy of the corrupt and barbarous superstition which the Moravian Indians had in abhorrence abandoned.

"On the arrival of the white men at the town, they proposed peace and good will to the Moravians; and informed them that they had come to take them to Fort Pitt for their safety. The Indians surrendered, delivered up their arms, and appeared highly delighted at the prospect of their removal; they then began with all speed to prepare victuals to subsist the white men and themselves on the journey.*

After this insidious capture, another party was despatched to Salem to bring in the Indians there who were also gathering corn. They were too successful; the Indians were all brought from Salem to Gnadenhutten. Here they were secured as prisoners, and a council of officers was held to determine their fate. This tribunal would not decide on the matter; but with unmanly and unofficer-like dereliction of duty referred the question of life or death to the men. Upon this the private soldiers were drawn up in a line, and the awful question was degradingly submitted to the men by their own Colonel, "whether the Moravian Indians should be taken prisoners to Pittsburg, or *put to death*."

Those who were in favor of saving their lives were directed to step out of the ranks; upon this, sixteen, or as some say, eighteen were alone found in favor of mercy. The prisoners were then told to prepare for death. This cruel result seems to have been foreseen by the deceived Indians, when they were once confined in the guard court. They began their devotions by singing hymns; praying and exhorting one another to place a firm reliance on the mercy of the Savior of men. When their fate was announced to them, these devoted people embraced, kissed and bedewed each other's faces and bosoms with their mutual tears, asked pardon of the brothers and sisters for any offense they might have given them, through life. Thus at peace with their God and each others, on

* Doddridge.

being asked by some of those who were impatient for the treacherous slaughter, whether they were ready to die, they answered that they had commended their souls to God and were ready.

The particulars of this atrocious butchery in cold blood of voluntary prisoners, who had committed no offense, without form of trial or shadow of public authority, are too horrible and bloody for detail. Suffice it to say, that the two houses in which the prisoners were confined, were turned into slaughterpens for these betrayed Indians, who were upon the strongest ground of presumption—the suspicions of *both* parties—innocent of white men's blood. There was no exception of age or sex in this massacre perpertated by misnamed Christians; all perished "at one fell swoop" by these degenerate Americans. Ninety-six out of one hundred and fifty of these people, fatally confiding in the faith of their murderers, perished in this worse than Indian massacre—worse because committed in disregard of all the lights of religion, civilization and law. Of the number massacred "sixty-two were grown persons, one third of whom were *females*, and the remaining thirty-four were *children*."* The houses and the remains of the dead were then burned together.

ARTICLE V.

From the U. S. Mining Journal.

On the Manufacture of Various Products from Coal.

Professor F. C. Calvert, F. R. S., delivered a most interesting lecture to a scientific audience, at Manchester, (G. B.) on the 22nd ultimo, in which he described at considerable length, the marvellous discoveries of modern science in applying to the arts, a variety of substances produced from coal. His lecture was of the highest interest, and provoked considerable discussion, during which it was stated by Dr. Lyon Playfair, that paraffine candles, specimens of which were exhibited, were not in extensive use, only because that the demand for the simple substance from which they were made was greater than the manufacturers could meet. We append some extracts from Mr. Calvert's remarks, observing that we pass over the Professor's observations on the different theories

* Daddridge, an author who lived among the perpetrators and witnesses of this bloody deed, p. 50. Heckewelder's Narrative, pp. 230, 299.

respecting the formation of coal, the scientific researches as to the relative value of the various kinds, and as to the manufacture of coke, those subjects being so frequently illustrated, and confine our extracts to the chemical products, which are invested with far more novelty.

The Lecturer said, the numerous products which chemists had ascertained to exist in substances distilled from coal may be estimated by the following :

Gases.	*Liquids.*	*Solids.*
Bicarburretted hydrogen.	Bisulphuret of carbon.	Naphthaline
Propyline	Ammonia	Para do.
Light carburetted do.	Eupion	Paraffine
Hydrogen	Paraffine oil	Pyrene
Oxide of carbon	Analine	Chrysene
Sulphuretted hydrogen	Lenkol	
	Carbolic acid	
	Benzine	
	Napthine	
	Napthole	

"The liquid products may be divided into two distinct classes, the aqueous and the tarry; the former of which produced ammonia, which was purchased by chemical manufacturers, and who obtained from it the sulphate of ammonia, for agricultural purposes ; sal-ammonia, used for soldering, and also extensively in calico and print works, in the production of a peculiar style of prints called steam goods; and from these two salts was obtained hartshorn, so much employed in pharmacy and smelling salts. By the distillation of ordinary coal gas liquor, common ammonia was procured, so much used in dye works, and which produced, with litchens, the beautiful colouring matters called orchill and cudbear, valuable for the production on silk and wool of delicate purple hues. The production of this dye was extremely interesting, as the colouring principle called orcine was colourless until acted upon by the oxygen of the air and ammonia.

One of the most interesting and useful applications of the fluids produced from coal was the preparation of ammoniacal alum, a manufacture which had lately become so extensive, that 800,000 gallons of ammoniacal liquor, obtained from the extensive gas-works of the Corporation of Manchester, were annually consumed in producing alum at the chemical works of Messrs. SPENCE and DIXON, near that city. The manufacture of this substance, so useful as an astringent, and also to the dyer and calico printer, furnished a remarkable illustration of the value of chemistry in aiding manufactures and commerce, and to obtain it, the shale which fell from the roofs of coal mines, a hitherto valueless product of the colliery, was turned to an important use. The shale was heaped in large masses, and slowly burnt, in order to render the hard substance porous and friable, and when calcined was put in large leaden vessels with sulphuric acid, having a specific gravity of 1-65, the strength at which it was obtained in the chambers in which it was made. It was not a little singular that the sulphuric

acid could be itself produced from another refuse of coal—the pyrites found in it. The successive processes of crystallization, by which alum of remarkable purity and beauty, which we have all seen exhibited, was furnished to the commercial world, required great practical skill.

A vast benefit would be conferred upon agriculturists, if the ammonia produced by the manufacture of coke were preserved, as recommended by Dr. L. Playfair, who estimated that every hundred tons of coal yielded about six tons of ammonia. The quantity of coke made annually in England amounted to at least 1,000,000 tons, which would yield 60,000 tons of sulphate of ammonia, a cheap and valuable agent in agriculture, which, besides encouraging the manufacture, would enable coke to be sold to the public at a lower price. It was one of the triumphs of chemistry that tons of the salts of ammonia were now manufactured from coal in England, where formerly it was imported in pounds, from a district in Nubia, from which it derives its name, and from Egypt, where it was produced in the form of sal-ammonia, from heating in glass vessels the soot formed by the burning of camel's dung. Alum itself formerly came entirely from the East, then from the environs of Rome, and now through the application of chemistry to manufactures, the progress of human intelligence, and the undaunted perseverance of our countrymen, it was made more pure, and on a greater scale in England, from what had hitherto been noxious and useless refuse products.

From coal tar was obtained, by distillation, a volatile fluid, called coal naphtha, composed principally of carbolic acid, and a heavy oil of tar, a solid substance, called pitch, being also left in the retort, which is extensively used by the Corporation of Manchester in assisting to pave the Streets. A large quantity of this pitch, to which was added tar and asphalte, was heated in portable boilers, and poured in a hot liquid state upon the pebbles and gravel between the interstices of the paving stones, which were thus firmly bound together, and became so durable that the most frequented thoroughfares in Manchester, when thus paved, had not required repairing for several years.

A sanitary advantage connected with this system deserved attention—namely, that stagnant water, or impure matter, could not percolate through the impervious pavement, and collect beneath, giving forth effluvia, dangerous to the health of the inhabitants in large cities, and even causing injurious epidemics. This tar has also been lately applied, when mixed with gutta percha or India rubber, to insulate telegraphic wires, and to prevent metallic substances from being acted on by the atmosphere.

One of the first products which came over in the distillation of coal tar was raw coal naphtha, which, when re-distilled, was sold under the name of naphtha, and burned by the keepers of stalls in streets and markets. When naphtha was again mixed with tur-

pentine, camphine was produced, which was burned in lamps in private dwellings. Rectified naphtha was made by mixing with it 10 per cent. of its bulk of concentrated sulphuric acid, and when the mixture was sold, about 5 per cent of peroxide of manganese was added, and the upper portion again submitted to distillation. This rectified naphtha was used to dissolve caoutchouc to make the substance imperviable to water, known as Mackintosh's patent; and when sulphur was added, and the mixture was submitted to steam at a temperature of from 400 to 600 deg., vulcanised India rubber was produced. Rectified naphtha had received from an eminent French chemist, named Pelouzs, the name of benzine, which had the property of removing with great facility spots of grease, wax, tar, resin, &c., from fabrics, without injuring the texture or color, or leaving any smell or mark, and had been found in England most valuable in brightening velvets, satins, &c.

"It would prove highly effective in removing oil from dyed wool, particularly in the manufacture of carpets, and will tend to preserve the brilliancy of colour, and render carpets less liable to become faded or dirty. Benzine, when treated with strong nitric acid, produced a substance called nitro-benzine, which was every day becoming more and more employed as a substitute for bitter almonds in flavouring dishes, and communicating scents to perfumery, soaps, &c. It was interesting to observe that thus, by the triumphs of chemistry, a delicious perfume had been produced from the noxious smelling refuse of coal.

"Oils were produced by the distillation, which had been applied with great success bp Mr. Bethel's process to the preservation of wood, which, when so treated, was extensively employed as railway sleepers, and wherever wood work was exposed to the influence of moisture and the atmosphere. The introduction of the fluid into the wood was effected by placing the wood in close iron tanks, exhausting the air, and thus forcing the oil through the whole substance of the timber, under a pressure of from 100 to 150 lbs to the square inch.

"There existed in the light oils of tar a product highly interesting, called tar creosote, which possessed extraordinary antiseptic properties, such, for instance, as preventing the putrefaction of animal substances. In consequence of its peculiar chemical composition, Mr. Grace Calvert had also employed it successfully of late in the production of a valuable dye stuff, called carbo azotic acid, which produced magnificent straw yellows on silk and woollen fabrics. The carbo-azotic acid could be prepared very pure, and at a cheap rate, enabling the dyer to obtain beautiful yellows and greens, not liable to fade from exposure to the air, as was the case with vegetable dyes. The intense bitter which this acid possessed had induced him to have it tried as a febrifuge; and Dr. Bell, of Manchester, had succeeded in curing by its aid several cases of intermittent fever in the Manchester Infirmary. Means

were in course of adoption to ascertain its real value as a substitute for that very expensive medicine, sulphate of quinine. Carbolic acid had been also lately applied in a manner like to prove of great advantage to dyers and calico printers, as a preservative of the mordants to fix colours on cloth.

"The heavy oil of tar used by Mr. Bethel contained a singular organic product, first discovered by Dr Hoffman of London, and called by him "kyanol" or "aniline," which possesses the property of giving, with bleaching powder and other agents, a magnificent blue colour. This substance can be produced from indigo as well as coal tar, and from the great similarity and chemical connection existing between their products, it was extremely probable that they would hereafter be employed as substitutes for indigo and madder. Lament had succeeded in obtaining from naphthaline a substance having a great analogy to the colouring principles of madder, and further chemical researches were likely to produce a rich red colour.

"Mr. Calvert then referred to the remarkable discovery of Mr. James Young of Glasgow—that if coals were distilled at a low temperature, the products were quite different from those produced by distillation at a high temperature, and produced instead of naphthaline the solid lubricating substance called paraffine. This remarkable product must be familiar to the readers of this Journal, and was termed by Dr. Lyon Playfair, in his report on the Great Exhibition of 1851, "liquified coal gas" Mr. Calvert exhibited a beautiful specimen of candles made from paraffine, extracted from coal, mixed with about 20 per cent. of wax. A similar substance can be produced from the distillation of peat, but we are constrained by the claims upon our space to confine our notice to matters of peculiar novelty."

ARTICLE VI.

An Essay on the Preservation of Universal Peace.

BY HON. A. BEATTY.

We are indebted to Hon. Adam Beatty, of Kentucky, for the following excellent "Essay on the Preservation of Universal Peace;" which we are persuaded will be found both interesting and profitable to the intelligent reader. The author is not a theorist merely, but a practical philanthropist, always aiming to attain the ends proposed by the use of adequate and rational means. Hence, he

wisely insists upon the removal, as far as practicable, of all the causes of internal war, as the first step towards Universal Peace among nations. This mode of treating his subject has led him into a full discussion touching the colonization of the African race of this country; which has been regarded by Mr. Clay and other great and good men as the noblest social enterprise of the age.

Though a certain class of our readers may differ with the author in respect to some of his views on political economy and public policy, yet the deep tone of patriotism, the boundless philanthropy and love of justice, which breathe throughout this essay, must challenge respect, and induce them at least to review the grounds of their opinions. Gifted with a sound, discriminating mind, the author has been a close observer of the causes and consequences of events for more than half a century, and surely it cannot be otherwise than interesting to younger men to know the views of such an individual upon subjects touching the future destiny of this mighty republic.—SR. ED.

AN ESSAY ON THE PRESERVATION OF UNIVERSAL PEACE.

BY HON. A. BEATTY.

We have the sure word of Prophesy, that a time will come when men "shall beat their swords into ploughshares and their spears into pruning-hooks: nation shall not lift up sword against nation, neither shall they learn war anymore." Isaiah, II, 4.

The preservation of *perpetual peace* among all nations, is an object of immense importance, and should engage the earnest efforts of all mankind.

God could, by the fiat of his will, at any moment put an end to all wars, and bring about universal and perpetual peace among all nations of the world; but in his infinite wisdom, he chooses to accomplish his benevolent designs by human instrumentality. It is the duty of all men to aid, as far as God shall give them ability, in carrying out the plans of infinite wisdom. It is more especially the province and duty of the ministers of Christ, who are laboring throughout the world, to extend the kingdom of the Blessed Redeemer, to promote the cause of *universal peace*, which is chiefly to be hoped for by the spread of the Gospel throughout all the nations of the world. We have the strongest encouragement to labor zealously and unceasingly in bringing about the cessation of *war*, and the establishment of perpetual *peace* among all nations, because we have the assurance of Prophesy, that this great benevolent and God-like work is to be accomplished. We know that, whatever apparent difficulties stand in the way, these may all, with

the blessing of God, be overcome; we should, therefore, never intermit our utmost efforts to accomplish so good a work.

All history evinces the great and unspeakable evils of war. The destruction of many millions of human beings, in every age of the world, and the indescribable horrors attending war-like operations, afford the strongest motives for desiring that there should be an end put to all wars. To these considerations may be added the incalculable advantages which would result from the application of the enormous sums of money expended in preparing for, and carrying on wars, to the purposes of education and other useful objects. It must not be forgotten, that the cessation of war would do away with the necessity of keeping up large and expensive peace establishments, thus burdening the people of every country with enormous taxes for the purpose of supporting a peace establishment, all which would be unnecessary, and could be dispensed with, if wars were at an end, and universal peace should prevail among the nations of the earth. A small portion of the savings of all countries, by the cessation of war, would enable them to establish everywhere common schools and other useful institutions of learning; to cut canals, build railroads, and make other useful improvements; and to improve our waste lands, by draining swamps, and accomodating the interests of agriculture, by affording easy facilities for transporting agricultural products to the places of their consumption, and receiving, in return, manufactured goods and other articles suitable to their wants.

It is not essential that governments—if deemed inexpedient—should apply the vast sums of money saved by the cessation of wars. By leaving these funds in the hands of the people, from whom they are now collected, they could in all suitable cases make the proper application of them to useful purposes, instead of being squandered for the wastful purposes of war.

No one can doubt that wars are the source of immense evils. In the present state of things, *defensive wars* sometimes become necessary, but when nations shall "learn war no more," they will also learn to respect the rights of other nations, and wars of *defence* will no longer be necessary. Weaker powers will no longer be under the necessity of resorting to force to resist the outrages and aggressions of the more powerful. All "will beat their swords into ploughshares," and universal peace will prevail.

How shall this blessed state of things be accomplished? Difficulties are to be encountered, but when we have God on our side, all difficulties will be overcome. His sure word of prophesy will certainly be fulfilled. Let all men then engage earnestly, in full confidence that God will assist in accomplishing the good work, in bringing about universal peace among all nations.

It is difficult to break down the long established *habits* of the nations of the old world. Those *habits* are so firmly fixed as to constitute *apparently* an irresistable barrier to all efforts to over-

come them. In a young nation, like ours, whose *habits* are not yet firmly settled, there is more ground to hope for a successful appeal to reason. Our rapid increase of population, (now about twenty-six millions, and will be doubled in twenty-five years,) will render *defensive wars* wholly unnecessary. Our military strength and great naval power, growing with the growth of our commerce, which will soon exceed that of Great Britain, the most commercial nation in the world, will soon relieve us from any danger from wars of aggression upon our commercial rights. In proportion to our growth, and the extension of our commerce, our influence with other nations will become more and more extensive. The time will soon arrive when no nation will dare to commit agressions upon our rights. Thus we may be enabled to preserve *permanent peace* with all foreign nations.

If we act wisely towards the several powers in America, (comparatively but feeble nations,) treating them on all occasions with *justice* and *generosity*, and exhibiting towards them the most friendly feelings, never, in the slightest degree, encroaching upon their territorial rights, we shall not only preserve peace with them, but acquire unbounded influence in preserving peace among the nations of this continent. If universal peace can be preserved among the nations of the American continent for such a length of time as to afford reasonable hopes that wars on the American continent have ceased, that peace and brotherhood universally prevails, and that these nations have learned "to know war no more," and if foreign nations shall, for a great length of time, witness these events and the unspeakable blessings arising from this happy state of things, the *good example* cannot fail of having the most wonderful effects. They may, for a short time, be able to resist the good example we shall have set them, but it can not be long before the old world will follow the illustrious example set by the nations of America, and thus wars will cease among the nations of the earth.

Nearly forty years have elapsed since peace was concluded with Great Britain. Within that period various differences have sprung up with England and other European powers, arising chiefly out of our commercial relations with them, but all these differences have been adjusted by amicable negotiations. Our commerce is becoming every year more and more important to all the commercial nations of the world; and it is of such great value to them that they are deeply interested in preserving amicable relations with us, because it is only in that way they can hope to enjoy the advantages of our commerce.

The United States will soon become the greatest commercial nation in the world, and her commercial interests will be greatly promoted by the preservation of peace with all nations. Humanity as well as our best interests require that permanent peace should

be preserved, if it can be consistently with honor and a proper regard to our just rights.

Between nations having continual and extensive commercial relations, questions will occasionally arise, under the Law of Nations upon which the parties interested may honestly entertain different opinions. The ablest judges of the common law courts, though perfectly disinterested, not unfrequently differ in opinion on points of law, arising within their jurisdiction. If questions of so much doubt frequently occur, as to give rise to a difference of opinion among the ablest Judges in Common Law Courts and Courts of Chancery, it is reasonable to suppose that questions arising under the Law of Nations may sometimes be of so doubtful a character, as to induce a different construction to be put upon them by the nations between whom such questions may arise. The difference of opinion in such cases may be perfectly honest and conscientious. Each party may be firmly convinced that his construction of the law is correct, and that he has right and justice on his side. In cases of this kind, what is the proper course to be pursued? First, friendly and candid negotiation, conducted in such a spirit as not to impute to each other wrong motives or intentional violations of the laws of commerce. Neither party ought to insist too rigidly upon his own construction of the laws of nations, but rather to compromise upon some reasonable middle ground. If any reasonable effort should fail to compromise the difficulty, then the matter should be referred to some independent nation, to be agreed upon by the parties, or if they cannot agree upon a nation, each might choose one, and those two a third, whose commissioners or a majority of them should finally settle the matter in controversy.

By some such methods all difficulties might be adjusted without resorting to brute force.

War should never be resorted to without extreme necessity—such as gave rise to the Revolutionary war, and the war of 1812, which has been correctly called a second war of Independence, as it was necessary for the protection of our commerce upon the high seas, and the freedom of our sailors from impressment by a foreign nation, whilst engaged in the navigation of our vessels upon the high seas. By acting wisely and discretely in adjusting commercial difficulties, past experience shows that they need never lead to war, which is always attended with a vast expenditure of money and other evils of a more agravated character.

But we must look to a more dangerous source of war, and guard with the utmost care against even the most remote causes tending to bring about dissentions among the several States of the Union. Whatever tends to bring about such dissentions, endangers the perpetuity of the Union; and if the Union should be dissolved, wars will immediately follow.

No greater calamity could befall our country than a dissolution of the Union. The imagination can scarcely conceive of the hor-

rors, devastations and crimes which would follow such a deplorable event. It would put an end to the hopes of the wise and good for a long time to come, that wars are about to cease, and universal peace and good will among men to take their place.

Let us take a calm view of the circumstances which may tend to bring about a dissolution of the American Union, and thus lead to the destruction of the best political institutions that ever were devised by the wisdom of man, aided by the good Providence of God.

The *first* and most important of these is the diversity of sentiment among the people of the United States in relation to the institution of slavery.

Second, differences of opinion arising from the supposed antagonistical *interests* of different portions of the Union—the cultivators of the sugar cane, rice and cotton in the South; the grain growing, hemp and stock raising portion of our citizens in the Middle and Western States, and the manufacturing States of the North-east.

Third, the great extent of our territorial limits which must give rise to a great number of additional States, and the consequent supposed impossibility of carrying on so complicated a government as ours will then have become.

Fourth, the danger arising from the annexation of foreign territory, containing a large population, speaking a different language, and with customs and manners greatly varient from ours.

The first of the circumstances enumerated above, is by far the most threatening. I cannot so well express my apprehensions of the danger arising from slavery agitation as by quoting the language used by the pious and eloquent Dr. Fuller, in a speech delivered at the annual meeting of the Colonization Society, at the City of Washington, on the 21st January, 1851. Dr. Fuller was not a member of the society. Though a Southern man, by birth, he was at the time a resident of the city of Baltimore. He was, therefore, eminently calculated to judge of the effectsof slavery agitation, and his language shows that his judgment was wise and discreet.

"Born at the South, educated at the North, minutely acquainted with the sentiments of the North and the South, as I am; in daily contact with Northern and Southern feeling, I utter my most solemn conviction to-night—may God avert the prophecy—that the elements of mischief, the *ignes supposiți*, the concealed fires of a volcano, are gathering under our feet. If something can not be done, nothing will save this country from the agitation of the slavery question, and from the evil—I put my finger to my lips, I cannot go on, I cannot look at it, I cannot speak it, but I see it—that nothing will save this country from the agitation of the slavery question and civil conflict. Your venerable head, Mr. President*—for your days, I fear, are almost numbered, and the

* Mr. Clay.

place which you fill, you will soon see no more; may God Almighty prepare for you a blessed place in Heaven—your venerable head will be reposing in the tomb, and the shout and discord of fratricidal war will not disturb your sleep. But some of us may be young enough to see that dismal hour. Unless something be done, I utter my solemn conviction, when I say that yonder monument will rear itself to the skies, only to have written upon it the epitaph of this Union; or rather it had better be not completed at all; it had better be left, like those unfinished pillars which we see in our church yards, which tell of a life broken off suddenly in its midst; its hopes, its promises, its pride, its prospects all blasted at a single stroke. I love my country with my whole heart. I can say with the Roman, "would that I had a hundred lives to give to my country." I love the Union with my whole heart. May God spread over it the banner of his protection. But much as I love my country, I love *man* even more than I love my country. And it is as the highest achievement of philanthropy, that colonization has my devoutest prayers for its success. In this light it has dignity, it has grandeur transcending the language of thought. Its end is the noblest, which can be proposed by any human mind."

As a farther illustration of the dangers arising from slavery agitation, I give the following extract from the message of the Governor of South Carolina to the Legislature, in 1853. "The history of our country, for the last ten years, affords abundant proof that as long as the United States endures, there is to be *no peace* for the slaveholder. *An eternal warfare* against the rights of person and property, under the associated influence of the people and the States of the North, and the central power, has been solemnly and deliberately decreed. For this reason it is essential that the community of which he is a member, should be prepared, at any moment, for every emergency."

Here is strong evidence of the *feelings* of the South in relation to slave agitation. Citizens of the non slaveholding States may believe that there are no just grounds for such excited feelings, and may therefore think that no danger can arise from slave agitation. But it is the part of wisdom to view this subject as it is viewed by our Southern citizens; and the utmost care should be taken not even to afford a plausible ground of complaint, on the part of slaveholders, in those States in which the institution of slavery exists, by constitutional provision.

If indeed it be true, as suggested by Dr. Fuller, in his admirable address before referred to, "that there is too morbid a sensitiveness upon this subject at the South," this will by no means lessen the danger arising from slave agitation. For the South will naturally act upon its own *convictions*, as to what are the true state of facts in relation to an unjust and unconstitutional interference with its rights on the subject of slavery. The danger to the peace of the South does not arise alone from the incessant

agitations of a few abolition fanatics; it is much more deeply seated.

"I believe, (says Dr. F.,) many thanks are due to you, Mr. President, and others, that the *crisis* has passed, but you know that the *danger* to the country *has not passed.* The true peril is that which, I am afraid, politicians overlook. It is the religious sentiment of the entire North; not the abolition, but the religious sentiments of the entire North, with reference to slavery." "Unless something can be done to meet the calm religious sentiment of the North, there will be *a deep and deepening feeling there*, and consequent *resentment* at the South, and a growing estrangement between the North and South."

Calm reflection upon the sentiments expressed in the speech of Dr. Fuller, from which extracts are given above, and upon the message of the Governor of South Carolina, will convince every philanthropic advocate of universal peace that "the *danger* to the country has not passed."

It is in vain to expect that *our example* can have an influence upon European powers, much less upon those of Asia and Africa, in favor of universal peace, unless we can preserve the peace of our own country.

What, then, is to be done? Dr. Fuller truly observes that "society would be subverted by the manumission of such a vast multitude belonging to another race." Such is the unanimous sentiment of the South; and the opinion is equally unanimous that a sudden emancipation of the slave population would be still more disastrous to the black than to the white population, because it would lead to a domestic war, in which the whites, from their superior numbers, knowledge and skill in warlike operations; would overwhelm and reduce their black enemies to the most lamentable state of degradation and suffering.

What then, I repeat, is to be done? We must look to some practical plan to relieve us from the evils of slavery. "Slavery, (says Dr. Fuller,) is not a good thing—a thing to be perpetuated." There are few at the South who are not willing to admit this. And if admitted, may not this great country come to understand itself? Would it not be oil upon the surface of troubled waters, and a rainbow in our troubled sky? Might we not hope that, at length, an equilibrium would be restored to our moral atmosphere, if these concessions were made? If the fanatics of the North would cease to denounce every slaveholder as an abomination and an iniquity, and if the fanatics of the South would cease to advocate the perpetuation of slavery as a blessing, it seems to me that a common platform, and a middle ground of love and brotherly feeling might be found, upon which all good men might stand, and in a spirit of love and generous philanthropy, consult as to the duty we owe the race which in the Providence of God is placed in our power. We of the South, cannot see any project contem-

plating the continued residence of the African population among us, which we regard as worthy of our attention."

How then shall we dispose of the African race?

"There stands Liberia, (I again quote from the eloquent speech of Dr. Fuller,) a republic which, though of yesterday, is already commanding the attention of the oldest cabinets of Europe, and has taken her place among the nations. The state papers of that young republic compare quite favorably with similar documents in this country, and I do say that the last message of her Governor is superior in good common sense, in talent and in literary merit, to communications, proceeding even from the executive departments of some of our States.

No candid man will deny to the African, powers which if unfolded, would raise him to an equality with other men: but these powers can never be unfolded in this country. What prospect has the coloured man? Is the bar, the pulpit, the medical chair open to him? Can he ever hope to take a seat in the capitol? Can he acquire the honors and appointments of this government? Above all, can he ever enjoy, what is most important to mental development, I mean the quickening, invigorating influences of the highest literary society. To propose these is to answer them. And how sad a lot it is for a human being, that neither he nor his children can ever aspire to the same honors as his fellow-men?

I will only mention one other sore calamity attending the conscious inferiority of the free black man in this country. He not only belongs to an inferior caste, but to a distinct race, and that race in continual contact with another race, who enjoy, above all people upon earth, the very advantages from which he is excluded. We live in a country where, let a man be but a white man, and he need not look up to any other human being as his superior by birth. (Applause.) There is no emolument, no honor to which he may not elevate himself. The proudest places in this land have been and are now adorned by men who have been the architects of their own greatness, and have won their way, in spite of a thousand obstacles, by the patient force of a true heart and an unconquerable will. I can point to such a man not very far from me. (Referring to his Excellency the President of the United States, the Hon. Millard Fillmore, who was next him.)

All this the free coloured man sees and knows. He sees and knows, too, that it is nothing but his colour—the colour given him by his God—which shuts him out from this noble and ennobling competition, and what must be the consequence upon him? It is impossible, but that the worst passions, envy, malice, vindictiveness, if not atheism, will rankle in his bosom, rendering him unhappy to himself and dangerous to the State. Already we have, here and there, fearful premonitions flashing up, now and then. Let me tell you that nothing but fear represses the utterance, loud and deep, of passions, which will only be the more fearful because

they cannot find any vent. If the free coloured man is to live in this land, he must be raised to social equality, and amalgamate with the white man, which will never be, or else he will be discontented and unhappy. He were unfit for freedom, and not a man, if he could be satisfied with his condition.

Up to this point, Mr. President, and beloved hearers, I have been speaking of the free coloured population of this country. If we regard the enterprise only with reference to them, how wise and beneficient is it? For my part, I was very glad the other day, that the fine little State, where I first drew breath, and which is only dearer to me because it has been so much misunderstood and misrepresented—I was glad to see South Carolina refusing to repel from her bosom her native free coloured people. I trust that she will yet unite with Georgia and Tennessee, and Virginia, and my adopted State, equally dear to me, Maryland, in transporting these people to a more congenial home.

All good men have mourned that this metropolis of our land has been so often the scene of wrath and bitterness and strife among those who are descended from such parents as the founders of our Republic, and who are bound together by such ties, and ought to love each other as brethren. Let us rejoice to-night that here all is peace, harmony and love—love to God, love to one another, and love to the whole human family. We are gathered here to-night, not in an arena for sectional contests and conflicts, but in a temple where, with one heart and one mind, we are consulting for the success of an enterprise which turns into utter contempt all the petty ephemeral issues of selfish intrigue and political ambition." (Applause.)

God grant that the whole nation may cousult and counsel together with cool and deliberate minds, and in the true spirit of Christianity, in relation to the benevolent and sublime enterprise of sending back to Africa her long lost children. If this important subject is entered upon with the pure and genuine feelings which pervaded the enlightened assembly which was eloquently addressed by Dr. Fuller, the most sanguine hopes may be indulged that much good will be the result. The wisdom and intelligence of the whole nation ought to be consulted, and a plan devised, the best calculated to carry out the benevolent design, without, in the slightest degree, encroaching upon the constitutional or legal rights of any State or citizen of our great confederacy.

It was a saying of the celebrated Swedish Counsellor, Oxenstiern, "*Quam parva sapientia regitur mundus*," with how little wisdom the world is governed. Such is not the case in relation to the colonization of our colored population. The greatest, the purest, the most enlightened wisdom should be brought to bear in carrying out such a system as will best promote, and most certainly accomplish the great work of freeing our country from the evils of slavery.

The complete accomplishment of this benevolent and highly useful work will require considerable time. If an *unlimited* amount of funds were at the command of the society, it could send to Liberia annually no greater number of colonists than that republic could conveniently and certainly provide for, consequently *patience* must be exercised by the friends of colonization. The great object, at present and for some time to come, should be to encourage the rapid growth and improvement of the Republic by promoting its commercial and agricultural interests, so as to afford increased facilities for the reception of emigrants and colonists from the United States. At present, only so many can be sent as the resources of the Republic will enable it comfortably to provide for. If the society can only realise funds sufficiently to send annually to Liberia this limited number, it will be all that is requisite for the present. This number may be annually increased, according to the increased ability of the Republic to receive emigrants and colonists. In the meantime, Liberia will be rapidly increasing in population by natural causes, by the amalgamation of native Africans, and by an increased number of emigrants and colonists, in each successive year. For the present and some years to come, persons of colour, already free, and those voluntarily emancipated, will afford full employment for all the means of the colonization society. Thus, by the time a proper system of gradual emancipation can be adopted, the capacity of Liberia for the comfortable support of emigrants and colonists will be so much enlarged, that a greatly increased number may be yearly sent to the Liberian Republic.

To be continued.

ARTICLE VII.

Russian Gold Mines.

A work of authority on the manufacturing powers of Russia was published some years ago by a Mr. PRELEZYNSKI, and he made the average annual produce of silver 43,200 lbs., and of lead 1,440,000 lbs. The aggregate produce of copper, both from the Government and from private mines, he returned at 7,596,000 lbs. All the gold raised at the Ural mountains is coined in the country, and he makes the quantity extracted from the Ural mines, and coined, in the ten years intervening between 1824 and 1834, 117,564 lbs., and the value, 7,143,499*l.* Platinum is also found in Russia, and is likewise coined into money, and we are told that of this rare metal there were extracted from the Ural

mines, and coined, within the same years, 28,125 lbs., value 393,737*l.*

The Russian measure, the pood, is about 36 lbs. avoirdupois, and the gold produce of Russia in 1846 was—private mining, 1490 poods; public mining, 187=1677 poods. The total quantity obtained in 1847 was 1779 poods. The produce in the ten years, 1837—46, was 8387 poods of fine gold, amounting to 366,848 lbs., value 18,751,310*l.* The produce of platinum in 1843 was 213 poods=7668 lbs., and the quantity of silver obtained in 1847 was 1190 poods.

Sir RODERICK MURCHISON had, early in the summer of 1840, visited the gold regions of Siberia, and, in a paper read before the Geological Society of London in 1844, stated the entire gold produce of the Russian empire to be then nearly three millions sterling. The very elaborate work published by him and his colleagues, MM. DE VERNEIUL and Count KEYSERLING, appeared in 1845; and it may, perhaps, be fairly assumed, that since they geologically surveyed the Ural Mountain district, the produce has not been stationary, but has rather advanced.

GUSTAVUS ROSE, a German writer, published at Berlin, in 1837, an account of the gold workings of the Russians in the Uralian district, and states that the auriferous sand principally occurs on the eastern declivity of the range. The sand from which the gold is at present extracted contains from about 1-2280 to 1-1920 part, and the expenses of washing and extracting commonly amount to two fifths of the net produce. According to Mr. ROSE, sand is sometimes found in which 1-600 part, or even 1-300 part, proves to be gold, and it is his opinion that, under good management, sand containing only 1-7680 part of gold could be washed with a fair prospect of profit. It does not appear that any efforts have been made to procure gold by crushing, or by any of the improved processes which the superior intelligence and activity of the Anglo-Saxon race have recently introduced. The platinum mines are situated on the western declivity of the Ural Mountains, and the proportion of that metal is stated to be very much larger than that of gold, amounting on an average to 142 part of the whole mass. Pieces of pure platinum have been sometimes found, weighing several ounces, and even, in some instances, over a pound. A small quantity of gold is sometimes united with platinum, and platinum has been itself discovered between layers of serpentine.

The gold mining system of Russia is thus described by a recent writer, Mr. COTTRELL, and it would appear to be rather a fair and reasonable one. Every freeman in Russia, not being a Government *Employé*, is at liberty to search for gold; and if an explorer be successful, he announces the fact to the Government, and applies for permission to avail himself of the discovery. A mining officer is then sent to examine the spot, and to mark out a district of about two English square miles, of which the explorer

is put into possession, so far as regards gold searching. The speculator is then at liberty to build huts, and to hire and locate laborers in them, who are generally persons who had been exiled to Siberia. At the fall of the year, when the intense cold impedes further operations, the gold procured is taken to a Government office in the nearest town, where it is weighed, registered, melted, moulded into ingots, assayed, and accurately valued—the ingots are then transmitted to St. Petersburg, and coined into money, which is paid to the speculator, the authorities deducting a small per centage for the purposes of the State. The Government is anxious to encourage such enterprises, and does not, therefore, press very heavily upon the adventurers. The returns are, however, precarious, and our author records one instance where a speculator in gold expended 35,000 roubles out of 40,000 of borrowed money, before any fruits resulted—but fortune then showered so bountifully upon him, that in the course of a few years he became a millionaire.

WESTERN CITIES.

From the Lexington Express.

LEXINGTON, MO.

In 1838 the ground now occupied by the City of Lexington, was a dense forest. In that year the city was laid out; and up to the year 1851, when much capital was diverted to California, improvement went on in a manner only known to western towns. Since 1851 a large amount of capital has been employed in California and New Mexico, and many enterprising mechanics and others have gone thither, which has, to a considerable extent, checked the growth of the city. The population, however, has continued gradually, but slowly, to increase, and an unoccupied house is rarely to be found in Lexington.

The whole number of houses within the city limits, including business houses and shops, is 550. Of these buildings a very large proportion are of brick, substantially built, and many of them of very large size, and conveniently arranged and well adapted to the purposes for which they were designed. The number of dwelling houses, of which a considerable amount display much taste and elegance of structure, is 415. The number of inhabitants is 3,320—making the very large average of eight souls to each dwelling; and notwithstanding the enormous prices at which houses rent, persons employ their capital in other ways more profitably than in the construction of houses for rent.

The public buildings in the city are all large, handsome, and well built of brick. They consist of a Court House, Clerk's Offices, and Jail—well built and of ample dimensions. Two Colleges—Masonic College, for males, the Lexington Female Collegiate Institute, and one public school. All these edifices are of brick, and though they display but little architectural beauty, are well designed for comfort and convenience—each being ample for the accommodation of 175 or 200 students.

In the city there are eight Churches of as many differest denominations, with an aggregate of 989 communicants, to-wit:

Roman Catholic	70	Methodist Episcopal	168
Episcopal Church	57	German Methodist	10
Presbyterian [Old School]	125	Baptist	299
Cumberland Presbyterian	100	Chistian	160

All these denominations, except the German Methodist, have excellent brick churches, in which they regularly meet for worship.

At this time the number of students in actual attendance at Masonic College, is 124; in the Female College, 110; in the Public School, male and female, 150. Besides these are Ingleside Select Seminary for young ladies, by Miss LONG, 33; Miss HAWKIN'S Private School, 30; Miss VAUGHN'S Private School, 26; Mrs. SLAYBACK'S school for small children, 26; making a total in all the schools of 399.

Arcana Hall is a spacious building, owned by the Odd Fellow and Masonic Fraternities. It is three stories high; the first story is occupied as store rooms. On the second floor is a superb Hall, used for exhibitions of various kinds, for lectures, parties, &c. It is the only place of amusement in the city.

There are fourteen Dry Goods Stores—all of which appear to be doing a good business.

Wholesale Groceries and Boat Stores	4	Livery Stables	3
Family Groceries	8	Printing Offices	2
Drug Stores	4	Marble Factory	1
Hotels	3	Saddlers' Shops	4
Jewellers' Stores	3	House and Sign Painters	2
Queensware, China & Glassware Store	1	House Painters	3
Book Stores	2	Stone Masons	2
Iron and Hardware Store	1	Boot and Shoe Shops	4
Boot and Shoe Stores	2	Brewery	1
Clothing Stores	2	Plasterers	4
Tin and Stove Stores	2	Barbers' Shops	3
Furniture Stores	2	Candle and Soap Factories	2
Confectionery	1	Carpenter's Shops	10
Milliners' Stores	3	Cooper Shops	4
Tailors and Drapers	4	Blacksmith Shops	8
Mantua Makers	2	Licensed Wagons and Drays	41
Tobacco and Cigar Stores	2	Coal Banks, now worked, in city limits	15
Lumber Yards	3		

The amount of Imports for the year 1854, is $683,504 00, to wit:

Dry Goods, &c., in 14 Stores	$341,556	Furniture and Furniture Stock	12,000
BoatStores&WholesaleGroceries	76,337	Saddlery and Harness Stock	13,000
Family Groceries	31,400	Millinery	7,500
Queensware	20,000	Carriages & Carriage Materials	23,800
Clothing	35,000	Tobacco and Cigars	7,500
Drugs, Medicines, Oils, &c	26,500	Hydraulic Lime	800
Books, Stationery, &c	10,000	Barley, Malt and Hops	2,000
Tin, Sheet Iron, Copper, Stoves	18,500	Marble	2,500
Pig Iron	1,000	Confec ioneries	4,500
Boots, Shoes, Hats and Caps	12,000	Lumber and Shingles	36,911
Hardware, Iron and Cutlery	12,500		
Watches, Clocks, Silverware, &c	14,900	Total	$683,504

During the same period, the Exports have amounted to $1,-041,237 49, to-wit:

20,799 coils BaleRope, val.	$263,620 00	102 pieces Marble	3,060 00
3,592 bales dressed Hemp	143,680 00	673 sacks Barley	1,009 00
3,105 bales undressed Hemp	62,100 00	173 bushels Hempseed	422 00
365 bales Hemp Tow	5,840 00	39 sacks Beeswax	702 00
10,000 yards Bagging	1,400 00	96 sacks Feathers	1,536 00
283 coils Binding	3,396 00	75 bundles Peltries	562 00
1,365 casks of Bacon	76,440 00	20 sacks Grass Seed	100 09
915 pieces of Bacon	1,098 00	6 barrels Tallow	144 00
1,316 barrels Lard	29,610 00	74 empty Casks	74 00
8,092 sacks Wheat	23,195 34	1 firkin Honey	10 00
19,051 sacks Flour	71,441 25	2 firkins Butter	20 00
1,160 barrels Flour	8,700 00	4 sacks Mustard	20 00
3,500 bushels Bran	417 00	7 hogsheads Tobacco	525 00
12,830 sacks Corn	16,037 00	2 Threshing Machines	212 00
200 sacks Cornmeal	250 00	57 sacks Beans	161 00
1,511 Dry Hides	2,719 80	15 rolls Leather	100 00
1,107 sacks Dried Fruit	2,767 00	6 sacks Pecans	42 00
96 bales Wool	1,746 00	Stoves and Castings	1,000 00
820 barrels Whisky	11,480 00	Gold Coin	20,000 00
67,600 bushels Coal	6,760 00	Hair and Bristles	150 00
1,471 packages Merchandise	14,700 00	There were during the summer transported in wagons, across the Plains to Mexico goods to the amount of	120,000 00
2,675 head Cattle	106,750 00		
95 Mules and Horses	8,000 00		
144 Wagons	28,800 00		
1,167 Hogs	9,276 00		
2 Carriages	900 00	Total	$1,041,237 49
102 sacks Flaxseed	255 00		

There are in the city a Branch of the Bank of Missouri, and two private Banking Houses, one Insurance Office and three Agencies for foreign Companies. Amount of property insured, about $3,000,000. Amount of premiums received, about $10,000.

There are in full operation in the city, three extensive Hemp Factories, giving constant employment to about 160 hands. Two of these Factories are worked by steam, and one by horse power. The aggregate amount of hemp manufactured and hackled for the eastern market, at these Factories, is 2,626 tons.

Two Steam Flouring Mills have ground since January last, 134,000 bushels of wheat, and 26,000 bushels of corn. Three Steam Saw-Mills have cut 1,248,000 feet of lumber.

Six hundred Plows were manufactured in the city during the present year.

The number of bricks made at four yards is 1,040,000. Owing to the sickness in the early part of the season, and the high price

of labor during the whole summer and fall, the number of bricks is comparatively small.

NEW BUILDINGS.—Two large fire-proof Clerk's Offices, erected by the County Court; one large building for a Public School, erected by the Lexington School District; one Warehouse, on the Levee, fifty feet front and one hundred deep, three stories high, by M. B. MATHEWS; one Warehouse, fifty feet front and one hundred deep, four stories high, by Messrs. MCGREW BROTHERS, not yet completed; buildings for Iron Foundry, by MORRISON & WRIGHT; one Hotel by J. C. ROUNTREE; five dwellings.

The Iron Foundry, which has been in blast about two months, will, during the coming year, require more than 200 tons of metal, and with its present capacities can manufacture 3,000 stoves per year, and is now prepared for executing all orders for every variety of castings and machinery.

TO BE ERECTED IN 1855.—One Paper Mill; one Factory for carding, spinning, weaving, dressing and coloring of woolen goods, and one steam rope factory, are to be erected in 1855.

PROFESSIONS.—Clergymen, 7; Lawyers, 17; Physicians, 13; Dentists, 3; Daguerreotypists, 2.

Civil suits instituted in the Circuit Court—including eight applications for divorce—one hundred and seventy-eight. The number of indictments found since January last, is thirty-eight. Of these, eight were for felonies, and thirty for misdemeanors.

CITY REVENUE FOR 1854.

Tax on Real Estate	$2,316 37
Tax on Personal Property	1,485 95
Tax on Money, Notes & Bank Stock	2,636 00
Wharfage	1,000 00
License	3,500 00
Poll Tax	413 00
Tax on Dogs	80,00
Total Revenue	$12,471 47
Valuation of Real Estate, lying within the City limits	$663,275 00
Personal Estate	297,191 00
Money, Notes & Bank Stock	527,230 00
Total valuation	$1,487,696 00

The number of Steam Boat arrivals at our port since the 1st of January, 1854, is 392.

From May 4, 1854, to December 24, 1854, the register of the City Hotel shows the arrival of about 5,500 strangers. This only embraces those who stopped over night.

DEPARTMENT OF INTERNAL IMPROVEMENTS.

The Railways of the United States, January 1st, 1855.

The "American Railway Journal" and the "American Railway Times" have each published a list of the Railways in the United States at the commencement of the present year; but from the discrepances which appear in their statements and from certain errors discovered in the description of works with which we happen to be acquainted, we conclude that neither of the lists are strictly correct. Indeed, when we take into view the great number of roads which have been in progress of construction for some years past throughout the United States, it is obvious that correct information touching the number of miles completed, and the cost of building, could not be easily obtained.

The following list of roads is copied, with slight alterations, from the "Railroad Journal;" the summary showing the number of miles in each State, cost, &c., is from the "Railway Times." According to the Journal the aggregate number of miles completed in the United States, on 1st January, 1854, was 19,438, and according to the Times, 21,310 miles. We incline to the opinion that in this respect the estimates of the Journal approximates more nearly the true amount.

From the American Railway Times.

The number of miles of railway in operation upon the surface of the globe is 40,070; of which 16,964 miles are in the Eastern, and 23,106 in the Western hemisphere; and which are distributed as follows: In Great Britain, 7,774 miles; in Germany, 5,340 miles; in France, 2,569 miles; in Belgium, 873 miles; in Russia, 422 miles; in Sweden, 75 miles; in Norway, 42 miles; in Italy, 170 miles; in Spain, 60 miles; in Africa, 25 miles; in India, 100 miles; in the United States, 21,310 miles; in the British Provinces, 1,327 miles; in the Island of Cuba, 359 miles; in Panama, 50 miles, and South America, 60 miles. The longest railway in the world is the Illinois Central, which with its branches is 731 miles in length, and constructed at a cost of $15,000,000. The number of miles of railway in the United States exceeds the rest of the world, by the number of 2,750 miles. The number of railways completed in the United States is 274; the number partially completed is 63; and the number in course of construction is 107; the number of miles in operation is 21,310; which have been completed at a cost of $621,316,103. The number of miles in course of construction is 16,975. The State of Massachusetts has one mile

of railway to each seven square miles of its geographical surface; Essex county, in that State, with a geographical surface of 400 square miles, has 159 miles of railway facility, which is a ratio of one mile of railway to each three square miles of its geographical surface.

Tabular Statement showing the number of miles of railroad in operation in the United States, January, 1855.

From the American Railroad Journal.

Roads.	Miles in operation.
MAINE.	
Androscoggin & Kennebec	55
Atlantic and St. Lawrence	150
Buckfield Branch	13
Bangor and Piscataquis	12
Kennebec and Portland	61
Bath branch	5
Portland, Saco & Portsmouth	61½
Calais and Baring	11½
Machias port	8
York and Cumberland	18
Androscoggin	20
Penobscot and Kennebec	40
Kennebec and Somerset	10
Total	459
NEW HAMPSHIRE.	
Boston, Concord & Montreal	92¼
Cocheco	2½
Concord	35
Contocook Valley	14½
Great Falls and Conway	13
Manchester and Lawrence	24
Northern	82
Portsmouth and Concord	47
Sullivan	25
Wilton	15
Cheshire	54
Ashuelot	23
Eastern	16¾
White Mountain	20
Boston and Maine	39¾
Merrimac & Connectic. Rivers	55¼
Total	585
VERMONT.	
Connec. & Passumpsic Rivers	61
Rutland and Burlington	119
Vermont Central	166
Rutland and Washington	12
Vermont Valley	24
Bennington branch	6
Western Vermont,	53
Whitehall and Rutland	13
Total	454
RHODE ISLAND.	
Stonington	50
Providence, Hartf. & Fishkill	32
Providence and Bristol	13
Total	95
MASSACHUSETTS.	
Berkshire	21
Boston and Lowell	28
Boston and Maine	44
Boston and Providence	53½
Stoughton branch	4
Boston and Worcester	68½
Cape Cod branch	46
Dorchester and Milton	3
Eastern	58
Essex (Salem to Lawrence)	21
Fitchburg	68
Fitchburg and Worcester	13
Lowell and Lawrence	12¼
Nashua and Lowell	15
New Bedford and Taunton	21
Newburyport	14½
Old Colony and Fall River	87
Petersboro and Shirley	23
Pittsfield and N. Adams	19
Providence and Worcester	43½
South Shore	11½

Roads.	Miles in operation.
Stony Brook	13
Western (Boston to Albany)	117
Worcester and Nashua	46
Vermont and Massachusetts	77
Housatonic branch	11
South Reading branch	9
Salem and Lowell	17
Georgetown	14
Grand Junction	6½
Harvard branch	1
Lexington & W. Cambridge	7
Taunton branch	11
Boston & N. York Central	74½
Fairhaven branch	15
Medway branch	3½
Saugus branch	8½
South Reading branch	8
West Stockbridge	3
Connecticut River	52
Charles River branch	9
Stockbridge and Pittsfield	22
Palmer and Amherst	20
Total	1,220
CONNECTICUT.	
Hartford and New Haven	62
Hartford, Prov. & Fishkill	76
Housatonic	98
Middletown branch	11
Faugatuck	62
New Haven Canal	65
N. London, Willim. & Palmer	66
New London and N. Haven	50
Norwich and Worcester	66
New York and New Haven	76
Danbury and Norwalk	24
Total	656
NEW YORK.	
Albany & West Stockbridge	38½
Buffalo and Niagara Falls	28
Cayuga and Susquehanna	35
Hudson and Berkshire	31½
Hudson River	150
Long Island	100
New York and Erie	464
New York and Harlem	130
Northern	118
New York Central	562½
New York City roads	25
Brooklin City	20
Watertown and Pottsdam	13
Flushing	7
Oswego and Syracuse	35
Renssalear and Saratoga	32
Saratóga and Washington	53
Saratoga and Schenectady	22
Skaneateles and Jordan	5
Corning and Blossburg	15
Watertown and Rome	96
Albany and Northern	32
Buffalo and State line	69
Buffalo and New York city	91
Buffalo, Corning & N. York	100
Canandaigua and Elmira	69
Plattsburg and Montreal	21
Rutland and Washington	51
Sackett's Harbor & Ellisburg	18
Troy and Boston	38
Canadaigua & Niag. Falls	99
Syracuse and Binghamton	80
Genesee Walley	20
Utica and Black River	16
Total	2,685
NEW JERSEY.	
Belvidere and Delaware	50
Burlington & Mount Holly	6
Camden and Amboy	98
Morris and Essex	63
New Jersey	31
New Jersey Central	64
Trenton branch	6
Union	33
Flemington branch	12
Camden and Atlantic	60
Millstone branch	6
Total	429
PENNSYLVANIA.	
Alleghany Portage	36
Beaver Meadow	36

Carbondale and Honesdale	24
Columbia and Philadelphia	82
Westchester Branch	9
Corning and Blossburg	25
Cumberland Valley	52
Little Schuylkill	28
Mine Hill	12
Pennsylvania	256
Phila., Reading & Pottsville	92
Phila. and Norristown	17
Germantown branch	6
Phila. and Trenton	30
Phila., Wilmingt. & Baltim.	98
Summit Hill & MauchChunk	8
Williamsport and Elmira	78
Franklin	22
Dauphin and Susquehanna	59
Chester Valley	22
York and Cumberland	25
Sunbury and Erie	27
Delaware, Lakaw. & Western	50
Catawissa	62
Phila. and Westchester	26
Pennsylvania Coal Company	47
Columbia branch	18
Hanover branch	13
York and Wrightsville	13
Lancaster and Harrisburg	37
Franklin Canal	26
Northeast	19
Indiana branch	16
Various Coal Roads	150
Pittsburgh & Steubenville	35
Philadelphia and Sunbury	25
Total	1,581
VIRGINIA.	
Richmond and Danville	95
Richmond and Petersburg	22
Clover Hill	11½
South Side	110
Manasses Gap	61
Petersburg and Roanoke	60
Seabord and Roanoke	95
Appomattox	10
Winchester and Potomac	32
Virg. Cent., incl. BlueRidge	138
Virginia and Tennessee	136
Orange and Alexandria	97
Richm., Fred'b'g & Potomac	76
Greenville and Roanoke	21
Roanoke Valley	22
Total	986½
DELAWARE.	
New Castle and Frenchtown	16
Wilmington branch	6
Total	22
MARYLAND.	
Annapolis and Elkridge	21
Baltimore and Ohio	379
Washington branch	38
Frederick branch	3
Baltimore and Susquehanna	57
Westminster branch	9
Total	507
NORTH CAROLINA.	
Gaston and Raleigh	87
Wilmington and Weldon	162
North Carolina Central	75
Weldon and Ridgeway	25
Total	349
SOUTH CAROLINA.	
South Carolina	242
Greenville and Columbia	165
Charlotte & S. Carolina	109
King's Mountain	22
Laurens	32
Wilmington & Manchester	171
Total	741
GEORGIA.	
Central	191
Georgia	173
Macon and Western	101
Western and Atlantic	140
South Western	72
Rome branch	20
Muscogee	50
Atlanta and West Point	81
Milledgeville	17
Eatonton and Milledgeville	21
Wilkes County	18

Athens branch	40
Waynesboro	51
Total	975
ALABAMA.	
Montgomery & West Point	88
Mobile and Ohio	62
Alabama and Charleston	56*
Tuscumbia, Courtl. & Decatur	43
Girard	25
Opelieka	30
Total	304
MISSISSIPPI.	
Raymond	7
St. Francis and Woodville	28
Vicksburg and Brandon	60
Mobile and Ohio	100
Canton and Jackson	25
Total	220
LOUISIANA.	
Carrolton	6
Clinton and Port Hudson	24
Lake Pontchartrain	6
Mexican Gulf	27
N. Orleans, Jackson & North.	85
N. Orleans & Opelousas	50
Total	198
TEXAS.	
Buff. Bay, Brazos & Colorado	32
KENTUCKY.	
Covington and Lexington	93
Lexington and Frankfort	29
Louisville and Frankfort	65
Maysville and Lexington	19
Louisville and Nashville	25
Total	231
TENNESSEE.	
East Tennessee & Georgia	80
Memphis and Charleston	63
Nashville and Chattanooga	158
McMinnville branch	25
Total	326
OHIO.	
Bellefontaine and Indiana	123
Central Ohio	141
Cincinnati, Hamilt. & Dayton	60
Cleveland, Columb. & Cinc.	135
Cinc., Wilmingt. & Zanesv.	90
Clevel., Painesv. & Ashta	72
Clevel., Zanesv. & Cinc.	61
Cleveland and Pittsburgh	133
Clevel. & Toledo, S. Division	87
" " N. Divis.	60
Columbus and Xenia	55
Columb., Piqua & Indiana	90
Dayton and Michigan	28
Dayton and Western	42
Findlay branch	16
Greenville and Miami	47
Hamilton, Eaton & Richmond	45
Carrolton branch	20
Iron	13
Little Miami	84
Mad River and Lake Erie	193
Mansfield and Sandusky	56
Newark and Mansfield	61
Ohio and Pennsylvania	187
Ohio and Mississippi	20
Ohio and Indiana	131
Scioto and Hocking Valley	44
Dayton and Xenia	19
Marietta and Cincinnati	94
Steubenville and Indiana	116
Springf., Mt. Vern. & Pittsb.	50
Springfield and London	20
Toledo and Indiana	50
Total	2,453
INDIANA.	
Columbus and Shelbyville	24
Evansville & Crawfordsville	109
Indiana Central	72
Indianapolis & Bellefontaine	84
Jeffersonville	77
Lafayette and Indianapolis	64
Madison and Indianapolis	86
Martinsville	27
New Albany and Salem	288
Newcastle and Richmond	40
Peru and Indianapolis	73
Shelbyville and Knightstown	27
Shelbyville Lateral	16
Shelbyville and Rushville	20

* Believed to be a mistake.—Ed. W. J.

Terre Haute and Richmond	73
Northern Indiana	129
Ohio and Mississippi	67
Michigan Central	40
Indianapolis and Cincinnati	90
Total	1,406
MICHIGAN.	
Central	228
Southern	133
Pontiac	25
Tecumseh Branch	10
Erie and Kalamazoo	33
Total	429
ILLINOIS.	
Aurora Branch	13
Aurora Extension	46
Chicago and Mississippi	220
" and Rock Island	182
" and Milwaukee	45
Galena and Chicago Union	220
Great Western Illinois	94
Illinois Central	630
St. Charles Branch	7
Illinois and Wisconsin	30
Terre Haute and Alton	90
Peoria and Oquawka	45
Bureau Valley	47
Ohio and Mississippi	75
Michigan Central	10
Michigan Southern	12
Central Mil. Tract	84
Belleville and Illinoistown	14
Total	1,864
MISSOURI—Pacific	37
WISCONSIN.	
Milwaukee & Mississippi	104
Watertown Branch	30
Milwaukee and Chicago	40
Beloit and Madison	16
Milwaukee and La Crosse	30
Rock River Valley	20
Total	240

SUMMARY from the Railway Times.

States.	Number of Railways.	Number of Miles in operation.	Number of Miles in course of construction	Cost.
Maine	12	477	35	$13,749,021
New Hampshire	16	512	34	15,860,940
Vermont	7	419	59	17,998,835
Massachusetts	39	1293	36	59,167,781
Rhode Island	1	50	.....	2,614,484
Connecticut	12	638	51	25,224,191
New York	32	2625	801	111,822,503
New Jersey	11	437	.....	13,840,030
Pennsylvania	69	1992	1406	94,657,675
Delaware	2	16	43	600,000
Maryland	2	512	30	2,654,338
Virginia	23	837	1095	16,466,250
North Carolina	5	381	243	6,847,213
South Carolina	10	700	374	13,547,093
Georgia	16	930	452	17,084,872
Florida	2	54	.....	250,000
Alabama	6	221	659	3,986,208
Mississippi	7	239	755	4,520,000
Louisiana	8	169	293	1,731,000
Texas	1	....	72	....
Tennessee	12	517	946	10,436,610
Kentucky	10	228	572	6,479,072
Ohio	47	2927	1681	67,798,201
Indiana	39	1453	2608	29,585,933
Illinois	31	2667	1556	55,663,656
Michigan	5	601	333	22,370,397
Missouri	6	37	963	
Iowa	4	115	1315	2,300,000
Wisconsin	11	283	746	5,600,000
Total	444	21,310	16975	$621,316,303

Railroad Meeting at Cleveland:—Tariff of Charges on Railroads.

At a meeting of the Representatives of about thirty Railroad Companies convened at Cleveland, Ohio, on the 28th day of November, 1854, the following resolutions and rates of charges were adopted:

Resolved, "That the following prices be affixed to the separate classifications to or from New York or Boston, by either of the Great East and West Lines. The New York and Erie and its connections, or the Worcester and Western in Massachusetts, and N. York Central from New York and Boston to the following places, on the three classes for Eastward or Westward bound freight, viz:

New York or Boston, to	1st Class.	2d Class.	3d Class.
Dunkirk	97	72	59
Buffalo	97	72	58
Suspension Bridge	97	72	58
Chicago	2 00	1 50	1 20
Cincinnati	1 57	1 20	1 00
Indianapolis	1 62	1 20	1 06
Lafayette	1 82	1 43	1 21
Terre Haute	1 87	1 45	1 21
Louisv.,viaIndianap.	1 82	1 40	1 21

Provided, That the prices from New York and Boston to Cleveland, and vice versa, on freight to and from Indianapolis, be the same as on freight to and from Cincinnati.

Classification—Westward.

FIRST CLASS.

Fresh Beef, Pork, Mutton, Venison and Veal,
Apples, green, prepared,
Apples, dried,
Baskets, twice 1st class rates,
Batting, Blinds, Bonnets, Books
Boots and Shoes, Bread,
Brushes and Brooms, Bacon loose
Buffalo Robes,
Cabinet Ware, boxed at once and half first class rates,
Candles, Cards,
Copper and Brass vessels,
Cotton Waste, in sacks or bales,
Carpeting,
Carriages, well boxed, owner's risk, once and a half first class rates,
Clocks and Weights, boxed,
Chairs, well packed, owner's risk of chafing, at twice 1st class rates,
Cork, Cigars boxed,
Covers and Sieves, Cocoa, Chocolate,
ChinaWare,Cutlery,Caps, Cassia
Cinnamon, Candles,
Dry Goods, in boxes, bales and trunks,
Drugs, in boxes and bales,
Demijohns, at owner's risk,
Feathers and Furs,
Furniture, same as cabinet ware boxed,
Fruit, Figs, Fish,fresh, prepared
Garden Seeds, Glass Ware,

Glue, Ginger, Grapes,
Glass, window, over 12 by 20, owner's risk,
Hair, in sacks, Hams, loose,
Hats and Caps, Honey,
Iron Castings, light,
Indigo, Ink, Leather, loose,
Looking Glasses, owner's risk, twice first class rates,
Lemons, sacked,
Measures and Tubs, Moss in sacks
Marble, wrought, owner's risk,
Machinery, boxed, small,
Mats and Rugs, Muskets,
Medicines, Musical Instruments,
Nuts,
Oysters, in kegs and cans,
Oranges, sacked,
Pepper, Paper Hangings, bundles,
Peaches, prepaid, Pine Apples,
Pianofortes, owner's risk, boxed,
Palm Leaves, Peltries,
Plows and Cultivators,
Porter and Ale, in glass,
Quinces,
Rattan, Raisins, Rockers,
Stationery, not boxed,
Scales and Scale Beams,
Scythe Snaths, Soap, fancy,
Sleighs, well boxed, once and a half
Stoves, at owner's risk, Saddlery, Spices,
Sweet Potatoes, Sizing, Stove Pipe
Stove Plate, owner's risk, Starch,
Tin Ware, Trunks, Tea,
Trees and Shrubbery, imported,
Trees and Shrubbery, domestic, once and a half 1st class rates,
Toys, once & a half 1st class rates,
Twine,
Umbrellas,
Veneering,
Wagons, children's, boxed, same as cabinet ware,
Waggons and Hobby-horses, unboxed, twice first class rates,
Waste, in sacks or bales,
Wines, in boxes or baskets, Whips
Wadding, Water, mineral, Wax,
Wheelbarrows, Wrapping Paper, Whalebone,
Wool, in sacks, Wooden Ware,

SECOND CLASS.

Axes,
Bagging, Bottles, Brimstone,
Binders Board, Burlaps, and Duck
Broom Corn, pressed, Berries, Bells,
Chair Stuff, Copper Plates and Sheets,
Copper Bolts, Pigs and Wire,
Copper Rods and Nails,
Crockery, boxes and barrels,
Cotton, round and squure bales, Chain,
Clover and Grass Seed,
Domestic Sheetings, Shirtings and Duck, in original bales,
Dye Wood, in bags and barrels,
Deer Skins, pressed,
Earthen and Stone Ware, Flax Seed,
Flax, boxed, Forks, hay and manure,
Glass, window, under 12 by 20,
Grass and Clover Seed,
Gum Copal,
Hides, Hoes, Hoofs and Horns,
Hemp, boxed, Hardware,
Iron, hoop, band and sheet, Iron safes,
Indigo, in original boxes,
Lead, in pipe, bars, pig and sheet,
Liquor in wood,
Leather, in rolls and boxes,
Loaf Sugar,
Moss, pressed,
Mahogany, in boards and planks,
Oakum, Oil, Oil Cloth,
Oysters and Clams, in shell,
Palm Leaf, pressed, Paper Hangings, in boxes,
Paste Board,
Pickles and Cucumbers, in casks,
Paints, dry or in oil,
Rice, Rope, Rags in sacks,
Raisins, fifty boxes,
Steel in bars, Scythes, Shovels and Spades,
Soap, common, Saleratus,
Sheep and other Skins, in bales,
Spelter and Zinc, Shot, in bags,
Sumac, Sugar, in bags,

Scale and Scale Beams, boxed,
Tobacco, in bales and boxes,
Tow, boxed, Tea, twenty boxes,
Tallow, Type,
Wood, in shape, Wire,
Wool, pressed in bales,
Yarn, pressed,

THIRD CLASS.

Anvils, Anchors,
Ale, in wood,
Beer in wood, Barilla, Burrblocks,
Bones, Bleaching Salts,
Cider, Crockery, crates & hogsh's,
Coffee,
Cement, Clay, Coal,
Cotton, square, 50 bales,
Chain Cables, Chalk,
Copper, in boxes,
Dye Wood, in stick,
Fish, salted and pickled,
Grain, in casks and bags,
Gum Shellac,
Hoofs and Horns,
Hides, pressed, in bales,
Iron Safes, five in number,
Iron, bar, bloom, bolt, pig & boiler
Iron Nuts and Rivets,
Junk,
Lead in casks, Lime, Lath, Lumber
Licorice, in case,
Marble and Stone, unwrought,
Molasses, Manilla, three tons Mill Stones,
Mahogany Logs,
Nails and Spikes, Nail Rods,
Oil, in hogsheads,
Plaster, Pitch,
Rigging, Rosin,
Rags, pressed, Rice, in tierces,
Steel, in boxes and bundles,
Sugar, in barrels and in boxes,
Sugar in hogsheads, Shot in kegs,
Salt,
Spelter and Zinc, in casks, Soda Ash,
Tobacco in hogsheads, Tar, Tin,
Vinegar,
Whiting in casks,

Eastward.

FIRST CLASS.

Fresh Beef, Pork, Mutton, Venison,
Baskets, once and a half first class rates,
Batting, Blinds, Books,
Brushes and Brooms, Bott'os,
Cabinet Ware, boxed, once and a half first class rates,
Cotton Waste, in sacks or bales,
Carriages, well boxed, once and a half first class rates,
Chairs, well boxed, owner's risk of chafing, twice first class rates,
Candies, Cigars, boxed, Candles,
Cheese, loose, Covers and Sieves,
Dry Goods, in boxes, bales and trunks,
Demijohns, at owner's risk,
Feathers and Furs,
Fowls, in crates, once and a half first class rates,
Fish, fresh, prepaid,
Furniture, same as Cabinet Ware,
Garden Seeds, Glass Ware,
Glass, window, over 12 by 20,
Game; dressed, Glue,
Honey, Hair, in sacks,
Iron Castings, light,
Leather, loose,
Looking Glasses, owner's risk, twice first class rates,
Marble, wrought, owner's risk,
Machinery, boxed, Medicines, owner's risk,
Musical Instruments,
Peaches; prepaid, Paper, not boxed, Peltries,
Pianofortes, boxed, Plows & Cultivators,
Porter and Ale, in glass. Poultry, dressed,
Rockers,
Scales and Scale Beams, Scythe Snaths,
Soap, fancy, Sashes,
Sleighs, well boxed, once and a half first class rates,
Stoves and Stove Plates, at owner's risk,

Saddlery, Sizing, Stove Pipe,
Sheep and Deer Skins,
Tin Ware, boxed, Trunks,
Trees and Shrubbery, at owner's risk, once and a half first class rates,
Twine,
Veneering,
Wagons, children's, same as Cabinet ware,
Waste, Wading, Water, mineral,
Wheelbarrows, Wool, in sacks,
Wine, in boxes,
Wooden Ware and Covers, Wrapping Paper.

SECOND CLASS.

(In Quantities of less than 1000 Pounds, to be charged First Class.)

Apples, green and dried,
Buffalo Robes, Beeswax, broom corn, pressed,
Bells, Blinder's Boards, Butter, Beans,
Bare Rope,
Carpeting, Chair Stuff, Cheese,
Clover and Grass Seed,
Domestic Goods,
Deer and other Skins, in bales,
Earthen and Stone Ware,
Eggs, in barrels, owner's risk,
Flax Seed, Flax, boxed,
Glass, window, under 12 by 20
Ginseng,
Hides, Hoes, Ham and Bacon, loose,
Hemp Yarn, Hemp. boxed, Hops,
Iron Castings, heavy, Iron Safes,
Leather, in rolls and boxes,
Measures and Tubs, in nests,
Nuts,
Oil Cloth, Oil Cake,
Paper in boxes, Paints, Dry and in Oil,
Pickles and Cucumbers, casks,
Potatoes, Peas,
Quinces,
Rope, Rags, in sacks,
Straw Paper, Scythes, Sugar, maple,
Soap, common, Saleratus,
Straw Boards, Starch,
Tallow, Tobacco, in bales, Tow, boxed,
Tea, Tin and Type,
Wine, in casks, Wool,
Wood in shape,
Yarn, pressed.

THIRD CLASS.

(In Quantities of less than 1000 lbs., to be charged Second Class.)

Axes, Ashes, pot and pearl,
Alcohol, in casks, Ale, in barrels,
Butts and Hinges, Beer, in barrels,
Burr Blocks, Bleaching Salts, Bones,
Beef, salted, in barrels,
Cider, Copper, pig and ore, Coal, Chain Cables,
Cotton, in square bales, Cement,
Fish, salted and pickled,
Grind Stones, Grain in casks and bags,
Hams, in hhds, or casks, Hoop, hoop poles,
Hogs Hair, Hoofs and Horns,
Iron, bar, broom, bolt, pig and boiler,
Iron Castings, large and plain,
Junk,
Lath, Lead, pig, Lime, Lumber,
Lard, in barrels, tierces or kegs,
Marble and Stone, unwrought, Mill Stones,
Nails and Spikes,
Oil,
Pork, salted, barrels, Plaster,
Sand, Shooks, Spokes, Staves and Heading,
Salt, in barrels and bags,
Tobacco, in hogsheads,
Vinegar, Whisky.

SPECIAL.

The undermentioned articles, when shipped in considerable quantities at one time, may be taken by either of the parties at such rates, over their respective routes, as they may from time to time determine, viz :

Anchors,
Ashes, pot and pearl,
Bleaching Salts, Burr Blocks,
Brimstone,
Beans, Beef, salted, in casks, Bale Rope,
Crockery, in crates and hogsheads, Chalk,
Coffee, Chain Cable, Clay,
Cotton, square bales,
Copper, pig or ore, Cotton, Candles,
Fish, salted, in casks,
Flour and Meal, in bags and bbls,
Gum Shellac,
Grain : Corn, Oats, Barley, Wheat and Rye, in bags, casks or bulk, Grind Stones,
Hams and Shoulders, in casks, Hemp,
Hides and Skins, green,
Iron, bar, pig and railroad,
Iron Castings,
Iron, nuts and rivets, 8 tons,
Liquor, in wood,
Lard, in bbls. and tierces,
Molasses,
Marble and Stone, unwrought,
Mahogany Logs, Mill Stones,
Nails and Spikes, Nail Rods,
Oil and Oil Cake, in casks,
Pig Iron,
Paints, dry or in oil, Pitch,
Provisions, salted,
Potatoes, peas, Pig Lead, Pork, salt, in casks,
Rosin, Rigging, Rice, Rags,
Sumac, in hdds, barrels and boxes,
Steel, in bars,
Salt,
Saltpetre, crude,
Tar,
Tobaco, in hhds., Tallow,
Whiting, White Lead, Wool, pressed,
Yarn, pressed,
Whisky, Window Glass.

Resolved, That each company represented in this Convention, shall be at liberty to determine their own local fare ; Provided, that the way fares collectively between any two points shall not be less than the price of a through ticket, as agreed upon by the Convention.

Resolved, That the fare for first class passengers be twenty-two dollars, and the fare for Emigrant passengers be eleven dollars between New-York and Chicago.

Resolved that the rates of fare on first class passengers by either of the four lines, New-York Central, New-York and Erie, Pennsylvania, and Baltimore and Ohio, shall be as follows :

NEW-YORK TO

Sandusky	$14 65	Bellefontaine	$16 50
Cleveland	13 00	Dayton, via Xenia	18 00
Detroit	15 00	Dayton, via Galion and Bellefontaine	18 00
Chicago	22 00	Dayton, via Sandusky	18 00
Indianapolis	20 00	Toledo	16 00
Cincinnati	18 50	Louisville, U. S. Mail Line	20 50
Columbus	16 40	Louisville, Ohio and Miss.	21 00
Shelby	14 75	Louisville and Indianapolis	21 00
Xenia	17 70		

From the Alton Telegraph, Dec. 15, 1854.

Terre Haute & Alton Railroad—Progress of the Work.

The division of the Terre Haute and Alton Railroad from this city to Litchfield, a distance of about forty miles, is now in the hands of the Company, and is formally opened for the accommodation of the public. Regular trains for passengers and freight will commence running on the road on this day. They will, we understand, for the present leave the foot of Henry street at 10 o'clock A. M., upon the arrival of the boat from St. Louis, and reach Litchfield at noon, connecting there with hacks to Hillsboro. Returning, they will leave Litchfield, at 3 o'clock P. M., and arrive here about 5 o'clock, in time for the evening train for Chicago, or the night boat to St. Louis. Due notice of the running of the trains will, however, be officially published in a day or two.

In regard to the other portions of the road, we have received from Capt. BARNES, several items of information, which will be interesting to our readers. He states that it is the intention of the Company to push the work on to completion just as rapidly as money and labor will accomplish it. Large forces are now at work at all the principal points on the line; and these will be increased whenever additional men can be employed to advantage. The track-layers have now reached a point about four miles East of Litchfield, and the embankment in the bottom of Shoal creek is nearly ready for the superstructure. It will be but a short time before the road will be opened to Hillsboro, the gap to be filled now being only about eleven miles.

From Hillsboro to the junction of the Illinois Central road, the distance is about twenty-eight miles, twenty of which are now ready for the rails. It is the intention of the Company to ship the iron from Chicago by the Central road to the junction, and to lay it towards Hillsboro. That portion of the road will be laid with iron by the first of February.

Upon the Eastern end of the road, the work is also progressing with commendable activity.—The track from Terre Haute westward, is laid to Grandview, a distance of thirty miles, and regular trains, twice a day, are now running upon it. The distance from Grandview to the junction of the Chicago Branch of the Illinois Central is about thirty miles; and at the rate at which the work is now going forward, it will be reached early in March. The rails for this section will also be received from Chicago by the Central road.

The remaining part of the road embraced between the two branches of the Central road, is not in so forward a state as the other portions we have mentioned. It is intended, however, that the work shall progress towards Shelbyville from both ends simultaneously, and that the track shall be laid through by June, ex-

cepting about seven miles of heavy work in the Kaskaskia river bottom. It is expected that the entire road from Alton to Terre Haute will be complete and ready for the cars by the first of next July; on which occasion a glorious excursion may be anticipated.

The completion of the Terre Haute and Alton road will mark a new era in the history and progress of Middle Illinois. Forming as it will the shortest and most direct *route* to the cities of the Eastern seaboard, it must necessarily command a very large proportion of the travel and traffic of this part of the country. The through business of the road, however, will not compare with the local traffic, which it will create and sustain. Every mile which the road traverses is capable of a high cultivation, and will produce in the items of wheat, corn, and other products, such a business as we now little dream of. Its completion will likewise open up wide farms, bring in population to the fertile prairies, and give renewed impetus to the advancement of the country through which it runs. It will be the commencement and the herald of a new epoch; and the long trains, as they vibrate like pendulums across the State, will hasten the coming of the time when Illinois shall rank in the scale of intelligence, wealth and resources, with the first of her sister States.

ST. LOUIS MANUFACTURES.

Manufacture of Nails and Spikes.

Among the many industrial enterprises which have been undertaken in St. Louis within the last year, none are better calculated to promote the public interest or to establish the reputation of our city as a manufacturing point, than the Nail and Spike Factory now in process of erection by Messrs. Stewart, Parks & Co. on Seventh street, in Allen's Addition. We are informed that this company propose to produce nails and spikes from the raw pig metal, but we have no information in respect to the particular process, nor do we certainly know that this is a new feature in the economy of nail making. But when we take into view the fact that the coal of this vicinity is regarded quite suitable for all the purposes of the establishment, it appears obvious, all other circumstances considered, that no other point in the Union offers greater inducements to such an enterprise.

We are informed that when the works are in full operation, they will consume about eighty tons of pig iron, and 5,000 bushels of coal, and produce sixteen hundred kegs of nails weekly. It is estimated that the works will employ about one hundred and thirty hands, besides coopers, teamsters, &c.

The works are being constructed on quite an extensive plan, occupying an area of three hundred and four by one hundred and three feet.

Should the proprietors of these works establish the fact that St. Louis coal can be used with economy, and produce a good article of iron from the raw pig, they should be regarded as benefactors of the city and to the community at large. This fact established, St. Louis possesses all the conditions required to make it the greatest producer of iron fabrics perhaps upon the globe, and we shall expect to see this branch of industry developed with a degree of energy and rapidity commensurate with its ultimate magnitude.

From the Missouri Republican.

The St. Louis Oil Manufacturing Company.

This Company was formed on the 21st day of February, 1854, under the provisions of an act of the State of Missouri, entitled "An act to authorize the formation of corporations for manufacturing, mining, mechanical or chemical purposes," passed March 12th, 1849. Its capital stock is one hundred and fifty thousand dollars, divided into fifteen hundred shares of one hundred dollars each.

Owing to the extreme hot weather last summer, the company was delayed in getting their machinery up, and their works started as soon as they hoped and contemplated. The object for which its members have combined is to manufacture vegetable or rosin oil, to be used for lubricating machinery, for currying leather, for painting, for burning, in the manufacture of varnishes, and the various arts. The works are located in Bremen. The building and machinery are of the first order, and are said by competent judges to be the best in the United States.

The works are now in operation, working eight hands, and producing about 400 gallons refined oil, 150 gallons naptha, and 3 barrels pitch per day.

The Adventures of the Last Abencerage.

From the French of Chateaubriand.

BY I. W. TAYLOR, ESQ.

When Boabdil, the last king of Grenada, was obliged to abandon the heritage of his fathers, he paused, in his flight upon the summit of Mt. Padul. From this elevated point one could behold the sea upon which the unfortunate monarch was about to embark for the shores of Africa. The observer could also perceive from the same spot the city of Grenada, La Vega and Xenil, upon whose environs were visible the tents of Ferdinand and Isabella. In view of this beautiful country and its mournful cypress, which marked at intervals the site of Moslem graves, Boabdil could not restrain his starting tears. His mother, the Sultana Aixa, who with other grand dignitaries of his former court, accompanied his exile, witnessing these evidences of excited sensibility, exclaimed to her son, "Weep now like a woman for a kingdom which you knew not how to defend as a man." They then descended from the mountain top, and Grenada disappeared from their eyes forever.

The Moors of Spain, sharing the fortunes of their king, dispersed themselves through Africa. The tribes of the Zegris and the Gomeles, established themselves in the kingdom of Fez, which land was their ancestral home. The Vanegas and the Alabes, diffused themselves between the coasts of Oran and Algeria. Finally, the *Abencerages* fixed their abodes in the neighborhood of Tunis. They created, in view of the ruins of Carthage, a community which is distinguishable to this day, among the Moors of Africa, by the elegance of its manners and the amenity of its laws. The families of this new commonwealth carried into their state the souvenirs of their ancient country. The paradise of Grenada lived ever in their memories, and mothers even whispered the name in the ears of their unconscious babes. Infancy was cradled and its dawning powers of soul fed with legends of the Zegris and the Abencerages. Each fifth day the prayer ascended from the mosque, from worshippers whose faces were turned towards their loved Grenada. The great Allah was invoked to bestow upon his chosen children that land of charms and radiant beauty. 'Twas in vain that the fields of the Lotophages offered to the exiles its fruits, its waters, its smiling verdure and its brilliant sun. Far removed from the *Crimson Towers*, there was for the exiles neither pleasant fruits, nor limpid fountains, nor refreshing verdure, nor a sun in the

heavens even, worthy to behold. Point out to any one of them the plains of Bagrada, and with mournful manner and bursting heart, he could only answer, "*Grenada!*" The Abencerages, above all others, preserved the most tender and faithful recollection of their country. They had abandoned with the profoundest regret the theater of their former glory, and the well fought fields which had resounded so often to their battle cry of "Honor and Love." Being no longer able to poise the lance in the deserts by which they were surrounded, or to invest themselves with the helmet of battle, in the midst of a colony of simple laborers, they consecrated their lives to the study of medicine, a study held in esteem among the Arabs, equal to the profession of arms. Thus it was that a warrior race, whose former occupation had been the infliction of wounds, betook themselves to the more blessed art of healing the grim miseries of war. But even in this peaceful pursuit, they retained some sparks of the martial fire which once inflamed them; for the cavaliers could but bethink themselves of the ravages their flashing steel once had made in the ranks of the opposing foe.

The hut of that royal family which once inhabited a palace, was not placed in the hamlet of the other exiles, at the foot of the mountain of Mamelife; it was built amid the very ruins of Carthage, upon the beach of the sea, at the spot where St. Louis perished at the stake, and where at this day can be seen a Musleman hermitage. Upon the walls of the hut were affixed bucklers of lion skin which bore upon an azure field the figures of two savages, battering down a city with an Herculean club. Around that device could be read these words, "'Tis but a trifle!" This was the arms and the device of the Abencerages. Lances ornamented with white and blue pennons, *alburnos* and knightly vestments of slashed satin, were ranged around bucklers, and were resplendent in the midst of shining cimetars and poignards. The observer could behold, in addition, suspended here and there, gauntlets, bitts enriched with gems, stirrups of silver, long swords in scabbards embroidered by the hands of princesses, and spurs of gold, like those with which Yseult, Genievre and Oriane once shod the feet of valiant knights.

On tables, at the feet of these monuments of glory, were ranged the trophies of peaceful life. These were plants gathered from the summits of Atlas, or plucked from the desert of Zahara. Many of

them even had been brought from the plain of Grenada. Some of these plants had virtues to heal or assuage the maladies of the flesh, and others were supposed benignly to reach and soothe the sorrows of the soul. The Abencerages esteemed those most which served to appease vain regrets, to dissipate foolish illusions, and to drive away those unreal hopes of happiness which are born merely to perish, and smile only to betray. Unfortunately, these simple medicines had sometimes effects opposite to those hoped for: and the perfume of a flower which drew its fragance from the natal soil, was a sort of poison to the souls of the illustrious exiles.

Twenty-four years had rolled by since the fall of Grenada. In that short time, fourteen of the Abencerages had perished from the influences of an untried climate, by the accidents of a wandering life, and above all, from the ravages of that secret and mining sorrow which wins its insidious way against all human strength. One sole branch was now the surviving hope of that once famous house. Aben-Hamet bore the name of that Abencerage who was accused by the Zegris of having seduced the Sultana Alfaima. He united in himself to the manly beauty, the valor, the courtesy and the generosity of his ancestors, that subdued brilliancy and that gentle expression of sorrow bestowed by misfortunes nobly borne. He was but twenty-two years of age when his father died, and he embraced the resolution to make a pilgrimage to his ancestral land to satisfy the cravings of his heart, and fulfil a purpose which he had carefully concealed from his mother.

He embarked at the port of Tunis; a favorable wind conducted him to Carthagena; he descended from the ship, and took at once the way towards Grenada. He announced himself as an Arabic doctor who had come to gather herbs and plants among the rocks of the Sierra-Nevada. A quiet mule carried him gently across that country where once the Abencerages flew on warrior steeds; a guide preceded, conducting two other mules ornamented with bells and linen stuffs of various hue. Aben-Hamet traversed the extensive heaths and palm groves of the kingdom of Murcie. From the age of the palm trees, he judged they had been planted by his fathers, and his heart was penetrated with regrets. On one side would arise a tower, whence the sentinel kept his watch during the wars between the Moors and the Christians; on the other would be visible a ruin whose architecture proved it of Moorish origin. Thus at every turn did objects suggestive of mournful souvenirs present

themselves to the Abencerage! He descended from his mule, and under pretext of searching for plants, concealed himself amid the ruins at hand, to pour freely forth his unbidden tears. He then resumed his route, and went musing on to the sound of the bells of the caravan and the monotonous song of his guide. The latter did not interrupt the long revery of Aben-Hamet, except in encouraging his mules by bestowing upon them the epithets of beautiful and valorous, or upbraiding them by the titles of idle and obstinate beasts.

The flocks which a shepherd conducted, as an army, to the yellow and uncultured plain, and a few solitary travellers, so far from giving an air of life to the lonely way, made it only appear more sad and deserted. Each one of those solitary travellers carried a sword at his girdle, and was enveloped in ample cloak and slouched hat, so that but half his visage could be seen. They saluted in passing Aben-Hamet who could distinguish in what was uttered only the words God, Saviour, Chevalier. In the evening the Abencerage took his place in the midst of strangers, without any importunity from indiscreet curiosity. They neither spoke to nor questioned him; nor did his turban, his robe or his arms, excite any visible sensation. Since Allah had decreed that the Moors of Spain should be deprived of their beautiful country, Aben-Hamet could not forbear to admire the grave demeanor of the conquerors. But still more stirring emotions awaited the Abencerage, as his journey drew towards its end. Grenada is built at the foot of the Sierra Nevada, upon two towering hills which are separated by a profound valley. The houses placed upon the declivities of these hills and in the depths of the valley below give to the city the appearance and shape of a half open grenade, and from this circumstance arises its name. Two rivers, the Xenil and the Douro, the former rolling its flood over sands of gold, and the bed of the latter sparkling with silver grains, flow at the foot of these hills, and then wind gracefully away into the midst of the charming plain of La Vega. This plain, which commands a view of Grenada, is covered with vines and pomgranates, with fig and mulberry and orange groves, and is encompassed by mountains of charming outline and beautiful hue. An enchanting sky and an atmosphere delicious and pure invade the soul with a secret languor which even the passing traveller finds it difficult to resist. One readily perceives that in a land like this, the heroic must soon yield to the tender passions,

except that love in its purity and truth, needs glory for its ally. When Aben-Hamet discovered the tops of the first houses in Grenada, his heart beat so wildly that he was obliged to pause. With arms crossed upon his breast, and eyes riveted upon the city, he rested silent and motionless. The guide also arrested himself in turn, and as all elevated sentiments seem readily comprehensible to the Spaniard, he appeared touched, and divined that the Moore beheld once more his ancestral home.

The Abencerage at length broke the silence. "Guide," exclaimed he, "be thou happy! Do not conceal from me the truth, for calmness rested on the waves at the day of thy birth, and the moon was filling her silver crescent. What are yon towers that shine like stars above that verdant forest?" "'Tis the Alhambra," responded the guide. "And that other castle upon the other hill?" said Aben-Hamet. "That is the Generalife," replied the Spaniard. "There is connected with that castle a garden planted with myrtles, where it is pretended, the Abencerage was surprised with the Sultana Alfaima. Further on you behold Albaizyn, and closer to ourselves the Crimson Towers." Each word of the guide pierced the heart of Aben Hamet. Ah! but it is cruel to have to appeal to strangers, to know the monuments of one's own fathers, and to learn from indifferent lips the history of family and friends! The Guide, putting an end to the reflections of Aben-Hamet, exclaimed to him: "Let us advance, Signor Moor, let us advance, God hath willed it! Take courage. Is not Francis I. a prisoner, at this very day even, in our city of Madrid? God hath willed it." He removed his hat, made a conspicuous sign of the cross, and then belabored his mules. The Abencerage, urging his own forward in turn, exclaimed: "It is written;" and they descended towards Grenada.

They passed near to a large ash tree, celebrated by the combat between Muca and the Grand Master of Calatrava, under the last king of Grenada. They made the circuit of the promenade Alameida, and entered the city by the gate of Elvira. They passed up the Rambla, and soon arrived at an open square surrounded on all sides with houses of Moorish architecture. A kan was open upon the place for the African Moors, whom traffic in the silks of La Vega attracted in crowds to Grenada. Thither the guide conducted Aben Hamet. The Abencerage was too much agitated to taste of repose in his new resting place; his heart was filled with

memories of his country. Being unable to resist the sentiments which agitated his breast, he went forth at midnight to wander through the streets of Grenada. He tried to recognise either by sight or by touch some of the monuments which the old men of his race had so often described to him. Perhaps that towering edifice whose walls were dimly visible through the shadows of the night, was formerly the abode of the Abencerages; perhaps on that solitary spot were celebrated those fetes which carried the glory of Grenada to the skies. There moved quadrilles resplendent with brocade; there advanced the galleys laden with arms and with flowers, and with fiery dragons, concealing in their sides illustrious warriors: ingenious contrivances of pleasure and of gallantry. But now, alas! in place of the sounds of the anafin, the notes of the trumpet, and the songs of love, a profound silence reigned about Aben-Hamet. That mute city had changed its inhabitants, and the conquerors reposed themselves upon the couches of the vanquished. "They sleep then, these fiery Spaniards," exclaimed the indignant young Moor, "under the roofs from which they have exiled my ancestors! And I, an Abencerage, watch unknown, solitary, abandoned, at the door of the palace of my fathers." Aben Hamet then reflected upon human destiny, upon the vicissitudes of fortune, upon the fall of empires, upon that Grenada in fine, surprised by its enemies in the midst of its pleasures, and changing suddenly its garlands of flowers for chains; he seemed to himself to behold its citizens abandoning hearth-stones and habitual fetes, like some convivial reveilers who, with disordered apparel, are suddenly chased by conflagration from the festive hall.

All these images and all these thoughts crowded themselves upon the soul of Aben-Hamet; full of sorrow and regrets, he pondered deeply on the execution of the project which had led him to Grenada, when the dawning day surprised him. The Abencerage had lost his way; he found himself far off from the kan, and in an obscure quarter of the city. All things were hushed in the stillness of perfect repose; no sound disturbed the silence of the streets; the doors and windows of the houses were closed; and the noise of the crowing cock in the habitations of the poor, alone proclaimed to them the return time of hardship and toil.

After having wandered a long time, without finding his way, Aben-Hamet heard the opening of a door. He saw come forth a young woman, clad almost as those Gothic queens sculptured upon

the monuments of our ancient abbies. Her black corset garnished with jet bound her elegant figure; her short skirt, narrow and without folds, disclosed a faultless ankle and a charming foot; a mantle, also black, was thrown upon her head, the folds of which she gathered in her left hand closely beneath the chin, so that the whole face was concealed, except her lustrous eyes and her ruby lips. A duenna followed her steps, and a page carried in advance some holy book; two servants habited in her own sable colors, followed at some distance the fair unknown: she was going to matinal prayer which the chiming bell announced in some neighboring monastery.

Aben-Hamet fancied he beheld the Angel Israfil, or the youngest of the Houris. The Spanish maiden, not less startled, regarded the Abencerage, whose noble figure was still embellished with his turban, robe and arms. Recovered from her first surprise, she made a sign to the stranger to advance, with a grace and freedom peculiar to the women of the country. "Signor Moor," she said to him, "you seem but newly arrived in Grenada; would you loose yourself?"

"Sultana of flowers," replied Aben-Hamet, "delight of men's eyes, O Christian slave, more beautiful than the maidens of Georgia, thou hast divined aright! I am a stranger in this city: lost in the midst of these palaces, I can no longer find my way towards the kan of the Moors. May Mahomet touch thy heart, and recompense thy hospitality!"

"The Moors are renowned for their gallantry," replied the fair Spaniard with the softest of smiles; "but I am neither the Sultana of flowers nor a slave, nor content to be recommended to the grace of Mahomet. Follow me, Signor Cavalier; I will reconduct you to the kan of the Moors."

She walked lightly in advance of the Abencerage, led him to the door of the kan, indicated it by a motion of her hand, passed behind a palace, and disappeared.

To what then tends the repose of life! Thoughts of country no longer occupied the undivided soul of Aben-Hamet: Grenada had ceased for him to be either deserted, abandoned, widowed or solitary; it was indeed more dear than ever to his heart, but it was a new glory now, which shed its radiance over the ruined city: with the memory of his ancestors, there was mingled now a new-born charm. Aben-Hamet had discovered the cemetery where reposed

the dust of the Abencerages; but in praying there, and prostrating himself and pouring out his filial tears, the thought thrilled his heart that the young Spaniard had sometimes passed by these tombs, and he ceased to think the lot of his fathers so unhappy. It was in vain that he sought to occupy himself solely with the duties of his pilgrimage to his ancestral land; useless that he wandered at the early blush of morn, to gather the dewy plants from the borders of the Douro and the Xenil: the flower which he sought now, was the charming Christian maiden. What ineffectual efforts had he not already made to find the palace of his enchantress. How often had he tried to traverse the same streets through which he had followed his heavenly guide! How frequently did he cheat himself with the delusion that he recognised the sound of the same bell, and the crowing of the cock, which he heard first when near the mansion of the fair Spaniard! Deceived again by similar illusions of sense, he would fly to other places, but still the magic palace ever escaped his eager search! Oftentimes nevertheless the similarity in costume among the women of Grenada, gave him a thrill of delicious hope: at a distance all the Christian women resembled the mistress of his heart; on closer view no one possessed either her beauty or her matchless grace. Aben-Hamet had finally made the circuit of all the churches in quest of the beautiful stranger; he had penetrated even to the tomb of Ferdinand and Isabella; and *this* was a sacrifice to be made only at the command of love. One day he was gathering plants in the valley of the Douro. Upon a flowery slope to the south he beheld the walls of the Alhambra and the gardens of Generalife; the hill to the north was adorned by Albaizyn, by smiling orchards and by grottoes teeming with population. At the western extremity of the valley could be seen the bell-towers of Grenada, which elevated and grouped themselves in the midst of evergreen oaks and cypress trees. To the eastward, the eye beheld perched on the summits of the rocks, convents, hermitages and the ruins of Illiberie, and still further in the distance the towering peaks of the Sierra-Nevada. The Douro rolled its current in the midst of the valley, and presented in its extent a vista of dripping mills, noisy cascades, the broken arches of a Roman aquaduct, and the ruins of a Moorish bridge.

Aben-Hamet was no longer either sufficiently wretched or happy, to enjoy the charm of solitude: he traversed with distraction and indifference to these enchanting shores. In wandering at hazard,

he followed a shady avenue which swept along the declivity of the Albaizyn. A country house in the midst of an orange grove soon attracted his eye: on approaching the leafy covert, his ear was saluted with the sounds of a voice and guitar. Between the voice, the features and the soul of woman, there is a mystic relationship, which at once speaks to the conscious heart of the lover. "That is my Houri!" said Aben-Hamet; with palpitating heart he listened: at the oft repeated name of the Abencerages his soul was fired with still more unbounded transport. The unknown minstrel was chanting a Castilian romance which recited the history of the Abencerages and the Zegris. Aben-Hamet could no longer control his wild emotion; he leaped the opposing myrtle hedge, and precipitated himself in the midst of a group of frightened maidens, who ran screaming away. The lovely Spaniard who was singing and holding still her guitar, exclaimed, "It is the Signor Moor!" and she recalled her companions. "Favorite of the Genii," said the Abencerage, "I have sought you as the Arab seeks a fountain in the fiery realms of the sun; I heard the sounds of your guitar, you celebrate the heroes of my country, the beauty of your accents informed my soul that it was you, and I lay at your feet the heart of Aben Hamet." "And I," replied Donna Blanca, "in thinking of you, was rehearsing the romance of the Abencerages. Since first we met, I have thought of you as a type of those Moorish Cavaliers." A delicate crimson glow suffused the face of Blanca in pronouncing these words. Aben-Hamet felt himself ready to fall at the feet of the young Christian and declare himself the last Abencerage; but a little remnant of prudence restrained him; he feared lest his name, too famous at Grenada, should give inquietude to its governor. The Moorish war was hardly terminated, and the presence of an Abencerage at such a moment could but inspire the Spaniards with a just alarm. Not that any peril could shake the soul of Aben-Hamet; but he trembled at the thought of being obliged to quit forever the presence of the daughter of Don Rodrigo.

(To be continued.)

De Bow's Review and Commercial Resources.—We are pleased to learn that the talented and enterprising Editor of this able and useful work has returned to the editorial chair, resolved, if practicable, to make his labors even more useful than heretofore. The work has been enlarged to 144 pages, and the January number is replete with interesting and useful matter. "The place of publication will be New Orleans and Washington City."

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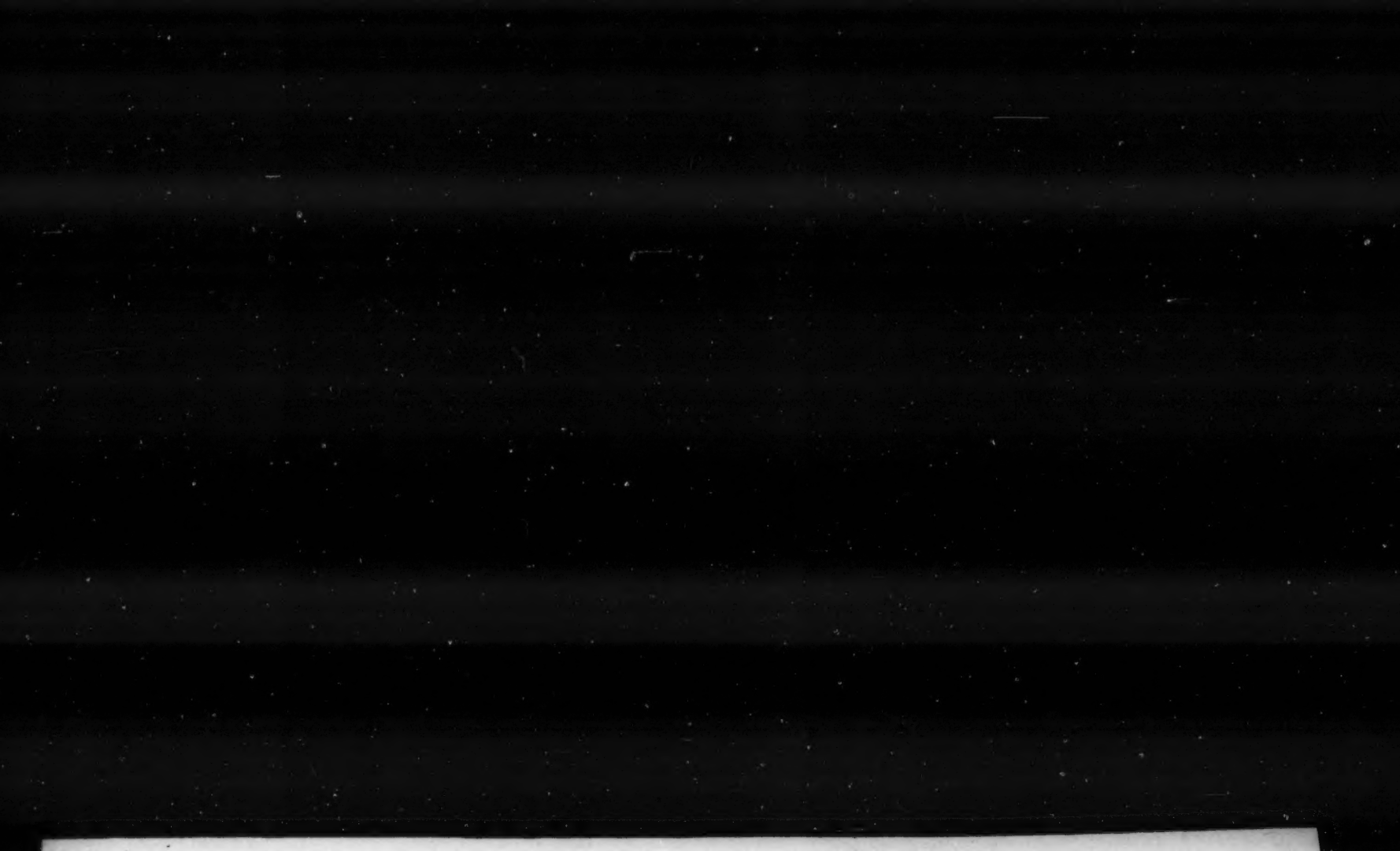

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